

THE VALLEY FARMER.

A Monthly Journal of Agriculture, Horticulture, Education, and Domestic Economy,
Adapted to the wants of the people of the Mississippi Valley.

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VALLEY FARMER,

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THE HANNIBAL CELEBRATION.

[Condensed from the St. Louis Intelligencer.]

The interesting event of breaking ground on the Hannibal and St. Joseph Railroad, came off Nov. 3, according to previous announcement, and will long be remembered as one of the most imposing pageants ever witnessed in that young city. The day was as bright and beautiful as nature could have made it, and was ushered in by the report of a cannon. At an early hour in the morning the streets began to present a very animated appearance, and were thronged with strangers; amongst whom we noticed many of the most distinguished politicians of the State.

A procession was formed, which proceeded to the public square, where speeches were made, resolutions passed, and an address delivered by J. B. CROCKETT, Esq., of this city. The company then partook of a public dinner, and then adjourned to the spot where ground was to be broken.

Mayor Kennet and several other gentlemen, also, removed a few spade-fulls of earth; after which Mr. Thomas Grey of St. Louis was called

upon for a speech and responded in a very handsome manner, urging the necessity of building up in Missouri, manufacturing establishments for the construction of locomotives, rail road cars &c. He said he could not see why we should send to Cincinnati and other cities for railroad machinery when we had in St. Louis, the timber, the iron, and all other necessary materials, together with first-rate workmen to put them together. We have too, he said, lots of cash to pay for these things, and he could not perceive the wisdom or justice of sending it to other cities instead of paying it to our own mechanics.

There was an immense crowd at Hannibal from Marion and other counties on the line of the road. We heard the number present estimated at five thousand, of whom a large portion were ladies. The St. Louis delegation numbered about two hundred exclusive of a number of ladies. The "Greys" acquitted themselves most admirably, and excited the greatest admiration by their perfect discipline, and their soldiery appearance. They were an honor to St. Louis, and constituted one of the most attractive features of the occasion. On the whole, it was day long to be remembered at Hannibal and by all who participated in the festivities.

In the absence of the Governor, Col. Stewart, the President of the Company, was called upon to throw up the first shovel-full of earth. He preceeded the ceremony with a very eloquent speech, which we regret we are not able to report. But it was marked with his usual ability, and delivered in his usual earnest and pointed style, which never fails to reach the heart of his audience. At the conclusion of his speech he said, as he was in frail health, and not a very able bodied man, he would request Mr. Lucas, of St. Louis, one of the Directors of the Pacific Railroad, to aid him in the performance of the duty. Mr. Lucas immediately came forward, and said he was most happy to participate in so interesting a ceremony; and the earth was then removed by Col. Stewart and Mr. Lucas jointly, amidst the shouts of the immense concourse.

AGRICULTURAL SOCIETIES.

Now that our agricultural exchanges are filled with glowing accounts of the Fairs, held by the State and County Societies, we are led to ask why it is that there are only two or three County Societies in Illinois and Iowa, not one in Missouri, and no State Society in either? Wisconsin has just held her State Fair, with great success; Michigan has held her second annual Fair, with very encouraging results, Indiana has organized her Board of Agriculture, and is preparing to have an extensive Fair next season, Kentucky has had her annual State Fair for two of three years, and yet here in this great valley we are standing perfectly still in the matter. We rejoice to know that we are not stationary in agricultural improvement—indeed we doubt whether there is any part of the country that is making more rapid advances than the three States we have named. From every quarter the cry for knowledge, for improvement, meets our ears. Old notions and false theories are being exploded, and farming is being regarded more as a business calling for the occupation of the mind, the intellect, as well as the hands. The bug bear of "Book farming" is fast following the other bears into the fastnesses of the mountains or the murky and stagnant recesses of the swamps, where men put their corn in one end of the bag and a rock in the other to balance as they throw it across their old barebacked horses, to go to mill. In some places—and the feeling is fast becoming universal—a man would be as much ashamed to own that he does not take and read an agricultural paper, as that he cultivates his farm without a plow, or chopped his wood with a butcher knife.

But in the matter of organization, of associated efforts for mutual benefit and instruction, we are far behind the times, and it is to attempt to wake up our friends, that we allude to the subject at this time. The approaching winter is a good time to move in the matter, and we hope to hear of the organization of hundreds of County Agricultural Societies. There is scarcely a County in either of these States, but has within itself all the elements for a flourishing Society, and all that is needed, is for a few active, energetic men to set the thing a going. It is very desirable that as many County Societies as possible, should be organized this season, in order that a strong effort should be made in the Legislatures next winter for the establishment of State Boards of Agriculture, and State Agricultural Societies. We need

these organizations, and must and will have them, and the way to get them is to act in concert, and present ourselves before our "humble servants," the law-makers, in such an imposing manner that they will neither dare slight our wants or fail to comply with our wishes.

It seems hardly necessary to speak of the advantages which result from such organizations, they are so apparent, yet it may be well occasionally to recall them to the minds of the farmers, to incite them to act on the subject.

A good, efficient, County Society, holding its annual Fairs, will be found a powerful auxiliary in promoting a spirit of improvement throughout all the community, by exciting a wish to excel. If a man plants one field of corn, with a view to make it the best in the county, he will endeavor to find out the very best way to cultivate this crop, a knowledge of which he will retain, and practice ever afterwards, on all his crops of that article; and his neighbors, seeing his success, will adopt the same way, and thus the average crop will be much increased. The same may be said, not only of all crops, but of all domestic animals, indeed of everything about the farm. These societies make farmers acquainted with each other, and with the business of each other. When they come together at the meetings it is not to talk politics, but to communicate and receive information relative to their farms, their horses, hogs, cows, sheep, implements, &c. If a farmer has made a useful discovery, purchased a superior kind of animal, or tested a new implement and found it valuable, the rest have an opportunity to know it, and can avail themselves of the advantages resulting from following a like course. In like manner, if one finds a warranted animal, a plausible theory, or a cracked up article to be worthless, his brother farmers become acquainted with the facts, and can act accordingly.

The exhibitions of these Societies often take the conceit out of men, who think there is nobody else so smart as themselves, by bringing out all the good points of their neighbors. Here are concentrated the choice labors of all, and those who feel a desire to improve, learn how others succeed, while he who has applied the most intelligence, and adopted the best methods, finds his rewards in the premiums and awards of his fellows. His pride is gratified. It is a mistaken idea that only those who receive premiums at these exhibitions are benefitted. Perhaps they are least benefitted of all, because, being already versed in the best modes of managing their busi-

ness they have not the chance to learn as much as those who are farther behind in the career of improvement.

We hold that every man who aims to be a farmer should encourage Agricultural Societies. If a man is wiser than his neighbors, or more successful, or has better stock, he ought to deem it a duty and a privilege to meet his brother farmers and teach them that "better way." He will lose nothing by communicating to them any knowledge which he possesses. The great God has so ordered it that there can be no such thing as competition, strictly speaking, in this good cause.

A man is never injured because his neighbors have raised large crops, or been unusually successful in any of their operations. On the contrary, any article coming from a neighborhood celebrated for the superiority of its productions is always preferred in market. Had the inhabitants of the Western Reserve made no more cheese than have the people of Southwestern Missouri, the products of the dairy in that section, though intrinsically as good as now, would hardly find purchasers, except at very reduced prices. So if a farmer would sell his beef or his pork, his wheat or his corn, his hemp or his tobacco, his horses or mules, for good prices, and find ready purchasers, he should use every exertion to cause his neighbors to assist him in making his County famous for its beef, pork, wheat, corn, hemp, tobacco, horses or mules, and above all for the superiority of every thing that goes beyond its borders. Such a celebrity can never be gained but by the combined efforts of all; and the legitimate result of these societies is to cause the people to act in unison, and together to raise the character of their County; while they are at the same time making individual advances in excellence. The farmer who attempts to shut himself up from his fellows, and keep all his knowledge and all his improvement to himself, is about as wise as one who, rejecting all cooperation with his adjoining neighbors, should fence his farm all round, and think that he alone was benefitted by the enclosure.

And the man who makes no pretension to excellence, and has no expectation of being a successful competitor for the awards of the Society, should also give them his hearty support. His object is improvement, and by this means he will learn much that it would take years of unaided labor to find out. He learns where to obtain the best seed, the choicest fruit trees, the finest animals, the cheapest and most durable

tools. He compares the profits on the different crops raised, and becomes informed of the most economical manner of sending his produce to market. He soon understands how another man raises three bushels of corn where he raises but two, and shapes his culture accordingly. His ambition is excited, and ere long he is prepared to teach others less proficient than himself.

By this means a good Agricultural Library may be established, and thus many valuable works are made accessible to the farmer which many of them could not otherwise obtain. A spirit of enquiry is excited; and intelligence and refinement take the place of ignorance and superstition. The establishment of a library should be one of the first objects of a Society. It will serve greatly to strengthen it, to cement its members together in bonds of mutual interest, and to keep the young men and the boys of the community from forming habits of idleness and vice.

Our remarks in this article have a more particular bearing upon neighborhood and County Societies. On another occasion we shall speak of State organizations, and their benefits. Will not every reader of this article ask himself what is his duty and interest in the premises?

THE WORLD'S FAIR.

The date, (Oct. 11th,) fixed upon for closing the great Exhibition, has now passed. The principal ceremony anticipated then, was the reading of the awards of prizes, and a statement of the grounds upon which they are given. On the 25th, upwards of 57,000 visitors were at the Fair; the receipts were £2735. Referring to packages of goods received from this port on the 20th, the London Morning Chronicle says:

"The American department has again received an important accession of strength, in the shape of Brussels carpet, woven upon power looms. Although various attempts have been made to adapt the power loom to carpet weaving in this country, there is not, we believe, at this moment, any machinery perfected for that object. Our American brethren have therefore gained another step ahead of us, and have won another laurel on this well contested field of the industrial arts. The looms upon which these carpets were woven have been for some time in use; and upwards of 800—the majority of which are at work in the manufactory of Mr. Bigelow, the inventor—are employed in the State. Each loom requires only the attendance of one girl, while in the ordinary mode of carpet weaving by hand

a weaver is required, and a boy or girl to 'draw.' In addition to this saving of labor, the power loom is stated to be capable of producing four times the quantity in the same space of time as could be woven upon the hand loom. As many colors can be used in weaving as in the ordinary Brussels carpets: and the specimens shown are, we are informed, without exception, the most even and regular in the threads of any exhibited."

The London Times has the following "summing up" on the subject of the great Exhibition:—

"Great Britain has received more useful ideas and more ingenious inventions from the United States through the Exhibition, than from all other sources!"

The Courier remarks that this is making the *amende honorable* to Jonathan, for having cried "small potatoes" at the first sight of his traps and notions.

THE SHEEP.

The Sheep is said to be descended from the mouflon; and there are some resemblances of conformation between the two species; but domestication has produced many modifications,—particularly in the head and tail, and above all, in the wool. Thus while the mouflon has only some small locks of wool covered with hair, the sheep is covered with wool among which a hair is rarely found.

Whatever be the origin, the sheep is a ruminant animal with or without horns, and having like the ox only 8 incisive teeth, by which one may know their age; these eight teeth are proportionally more long, thick and solid than in the ox. The two middle ones, called milk teeth, fall out, and are replaced at the age of one and a half or two years, according to the race and time of birth, whether it be spring or autumn. The two next outer ones, are shed at three, the two next at four, and the two corner ones at five years; but the second set often remain short and nearly in a rudimentary state.

The characteristics to be sought for in sheep depend upon the end to be attained, if the flesh is the principal object in view, the animal ought to have a small head, wide forehead, short and small neck, breast wide and deep, back straight, sides full and round hips wide, flank short, thigh thick and legs short; these are the qualities which the English have endeavored to impress upon

their races, and which it will not be difficult to give to some French races, even without crossing; particularly the Artesian race and the sub-race of Berri.

If wool presents, in a particular locality, the most advantageous speculation, and if the nature of the pasturage is agreeable to the fineness of quality, without any circumstances unfavorable to the health of the animals, the sheep are selected accordingly. If you try to make a sheep produce fine wool, good mutton and a large quantity of fat at the same time, you are seeking for an impossibility. The Merino is always a very inferior race for fattening. When you would obtain the best superfine wool, it is necessary to see that there is the least possible difference in the different parts of the fleece,—that of the sides being always the finest, the best means of producing this equalization is to obtain a superfine buck with an equal fleece to run with the flock,—in some cases however, when the fleece of the mother is unequal in quality, that of the offspring is augmented or at least made more apparent, by this means.

Next to equality in the fleece, comes the form and size of the animal,—abundance of feed produces sheep of large size at the expense of fineness of wool, and vice versa—very large sheep should be excluded from a flock intended for fine wool. Those appendices of the form, such as the dew lap, the folds of the skin about the neck, &c. are deformities which indicate a superabundance of nourishment and are unfavorable to fitness of fleece. When one has pasturage on it is difficult to avoid large size in the animal, he must content himself with wool of medium quality, and make increased quantity compensate the difference,—in this case, there is not necessarily, any inequality of the fleece. But to digress, and return to the choice of sheep for mutton: it is necessary to observe that a paleness or blueness of the veins and conjunctiva of the eyes, indicates bad health,—while red or violet color indicates good health and good constitution; pale gums, a fetid breath, and soft wool which is easily pulled out, and tenderness on pressure over the kidneys, indicate feebleness of constitution.

THE MERINO RACE.—This race is more distributed over the country than any other. Their first introduction is due to Daubenton,

who established a flock at Montbard, in 1766. Twenty years later, Louis XIV., founded an establishment at Rambouillet—new importations took under the director of this establishment, and afterwards under the direction of Napoleon. Among those of the different importations there are two types, viz the Rambouillet and the Naz.

At Rambouillet they have endeavored to reunite the two qualities of fineness and large quantity of wool, and still to maintain a sheep of such size as would be fit for the butchers of Paris. At Naz, they attach the first importance to the fineness and evenness of the fleece, without regard to quality or size of the animal.

The Rambouillet type are scattered over the rich countries of Normandy, Picardy, Beauce, and Brie. The Naz type is adopted in Champagne, where the pasturage is favorable to fitness of fleece, but not to large size of the sheep. The first is much the largest, and produces more wool and heavier mutton—but the latter has much the finest fleece, and is the handsomest animal. In both the bucks are found with and without horns.

THE ROUSSILON RACE.—This race is evidently of Spanish origin; but climate and treatment have produced great changes in their character. The sheep is less in size than the Merino; its body is more slender, it lacks the folds and dew laps—its horns are smaller and less spiral; the wool is shorter, coarser, and less impregnated with oil; undulating equally from the root to the extremity where it is generally spiral. This race is of a more robust constitution, more easily fattened, and more esteemed as mutton.

THE BERRI RACE.—This race after the Bussillon furnish the finest wool in France. They are of small size, usually destitute of horns, legs without wool from the hams down to the foot; they have long necks, no folds or dew laps—shoulders narrow,—they are fattened sufficiently easy, and yield a very juicy flesh,—but their size and the narrowness of their loin, gives a quarter too small to be much esteemed. Another variety of this race called the Crevant, is one of larger size and more value for mutton, but the wool of coarser quality.

To be continued.

Hogs.—The market has been dull for a week or two, with no disposition on the part of buyers and sellers to come to terms. A few engagements have been made at \$3 25 gross, and a contract at \$4 50 nett. No hogs have arrived yet, although the packers are ready to commence operations. The impression is now very general that the number of hogs packed at all points, will not exceed last year's product.

In the Wabash Valley it is generally conceded, that the average weight of hogs this year exceed by 10 per cent. those of last season, and in points of number there will be no falling off. Engagements have been made by packers at Lafayette, Ia., at \$3 75 to \$4, but there is a disposition among buyers to hold off. At Frankfort, Delphi, and other lesser points, \$3 and \$3 50 are the ruling prices.

At Terre Haute, we understand, about \$150-000 has been expended in hogs at prices ranging from \$3 25 to \$4 per 100 lbs. In Decatur county many farmers have contracted their hogs at \$3 25 gross. The crop supposed to be shorter than last year.—[Louisville Courier, Oct. 30th.

The Illinois and Michigan Canal Company will pay 24 per cent. on the principal of their Canal loan, besides their usual half yearly interest, on the 30th of October.

HEALTHIEST COUNTY.

The Western Pioneer has been examining the census, and states that the healthiest county in this State is Taney, situated in the Ozark mountains—the deaths in 1856 being only one in 364. Mississippi county, situated in the swamps, is the sickliest—the deaths in 1850 being one in 28. A tremendous disparity.

Besides the salubrity of the Ozark region, there is another fact connected with it,—it has been pronounced by competent persons—German vintogers—that no country has a soil and climate better adapted to the grape culture, than the region about the Ozark mountains. They are satisfied that, if the grape be once introduced there, its success would be so great, that, in a few years, America would export, instead of importing wines. How amply our soil is calculated to make us a—*Nation at home.*

All we require is, a better agricultural organization. We want a greater and more ra-

tional intiv, to a system of scientific farming. The body is not sufficient. We must add dignity to the vocation. We know, of late years, a revolution has taken place in the world's estimation of the respectability of farming pursuits; but the proper it is not yet gained. Every profession its grades of honor conferred on its vot. Why not those of agriculture? We have more to say on this subject hereafter.

In addition to this view of this corner of our State, it is a region well adapted to general fug pursuits. The following evidence clip from the St. Louis Intelligencer:—*Arondelet Times*.

A pile of sixty bushels of wheat raised in France county, in the extreme southwest portion of this State, was sold on 'Chan for the round price of 80 cents per bushel. It was brought nearly 300 miles by wagon and is the first sale of wheat from the southwest ever made in this city to our knowledge. The berry was of a bright red, pie and perfectly flinty; and as an indication of its superior quality, it brought the very highest market price. The soil and climate of southwestern Missouri are well adapted to the cultivation of wheat; and when means of easy and cheap transportation opened to market, millions of bushels will be grown in the Kickapoo and Ozark prairie.

PEMBINA.

At a point five hundred miles north west of St. Paul, Minnesota, is a settlement named Pembina. It is close up to the British line, and very similar in the character and pursuits of its inhabitants to the Selkirk settlement on the other side of the line. I will remark that the latter settlement began about thirty years ago, under the auspices of Lord Selkirk, a British Nobleman. The Selkirk town shows some interesting features of civilization and refinement. It has churches and certainly one bell to wake the solitude of that remote region, for the bell was carried up through St. Paul the past season. It has an academy and a general establishment of schools.

The people of Pembina are generally half-breeds, a cross of the Indian and French. Here is a lively instance of the well known affinity of the Frenchman for the Indian

woman. This association of the two races, favors the side of civilization more than barbarism; Indian women are easily domesticated and are fascinated by the arts of civilized life. On the contrary, the Indian men are stubbornly conservative to the customs of their fathers. Therefore, the Pembinas are civilized. They live in houses, they use carts and raise grain. Yet the circumstances of their location, or a lingering of the Indian instinct, leads them to find their chief subsistence in the chase. Their arms are guns, their dress is half way between that of the whites and the Indians. They wear wild looking fur caps, blanket coats, pants secured around the waste by a belt, and deer-skin moccasins. Their complexion is swarthy, their hair and eyes black. Their language is an impure French, though all probably talk Indian besides.

In the Spring they put a small patch of ground in seed, and pack off to the buffalo plains for the chase. Having taken the buffalo, they select the best portions of the flesh, dry it, pulverise and stuff it in skins sewed up in the shape of a pillow case. The preparation is called *panmican*. They also dry the tongues and the hump, cut from the top of the shoulders. In the winter they hunt for furs, these are their articles of export. As soon as the roads are dry in the spring a caravan starts off for St. Paul with these articles for the purpose of trade.

The equipage is novel and curious. A single ox is harnessed into the thills of a cart with a collar and pads, as we harness a horse. The cart has high wheels without a particle of iron about any part. Circular strips of green hide are stretched around the ends of the hubs so that when the skin becomes dry it makes a tight band. Nor is there any iron about the harness. A low covering of linen cloth is hooped over the top of the cart, which suits the squatting posture of the women and children, who sometimes come too, and serves for a canopy at night.

Frequently a caravan of these people is seen coming into St. Paul, strung along, some twenty in number. Their journey occupies fifty-five days.

These people are honest, simple hearted, and accounted by the laws of Minnesota as citizens—qualified to vote and to hold civil offices.—[Minnesota Pioneer.]

ADDRESS

DELIVERED BEFORE THE MICHIGAN STATE AGRICULTURAL SOCIETY, AT ITS THIRDA-NUAL FAIR, HELD AT DETROIT, SEPT. 24TH, 25TH, AND 26TH, 1851.

BY HON. LEWIS CASS.

That the lines had fallen to him in pleasant places, and that he had a goodly heritage, were subjects of congratulation with the Royal Psalmist of Israel, gratefully acknowledged and beautifully expressed in one of those outpourings of the imagination which have come down to us in the pages of scripture, and whose hold upon the human affections is as powerful now as in the brightest days of the chosen people of God. And where is the American who does not feel that his country offers goodly heritages and pleasant places, and equally, too, to all who seek them, from the shores where our fathers first commenced their stern contests with nature, to that distant ocean which their deservants have reached, by like trials and exertions, and which separate us from the islands and continents of Asia? And no where are higher rewards offered to human industry and enterprise, as well by the physical as by the moral and political advantages within our reach, than meet us at every step of our progress upon our own beautiful peninsula. Around us is one of these PLEASANT PLACES, one of these GOODLY HERITAGES.

Few positions present more objects of agreeable contemplation than does the very spot where this assemblage is now convened, in peace and prosperity, not to celebrate a victory nor to extol a conqueror, but to commune together upon one of the most interesting subjects that can engage the human attention. Above us and below us are vast internal seas, unequaled upon the face of the globe, stretching away to other regions, distributing their bounties far and wide, already bearing rich products, "corn as the sand of the sea," from the great granary of the North-West, to supply the wants of other portions of the world less favored by nature, or more harshly ruled by man.

The solitude of the forest, but yesterday so appalling from its very intensity, is now broken by the busy hum of human industry; and wind and steam have united their power, and have penetrated the most secluded recesses, in search of the objects and the rewards of energy and perseverance. But who so bold as to venture to set bounds to the productive agent of this great theatre of human exertion or to fortell how far and how fast will be its progress? The future baffles all calculation, as the past has out-stripped all anticipation.

But our business is with the present, and our noble river is too prominent an object in the landscape of our "goodly heritage" to be passed without remark. Uniting the upper lakes with lake

Erie, it flows between them in a course of many miles, forming by its extension the small lake St. Clair, and presenting the marked features of beauty and of magnitude, which arrest the attention of the most careless observer, and ministering also to the health and wants of our city, while ministering to the wants of a commerce already great, tho' born of yesterday, and destined to take its place, and ere long too, among the proudest monuments of human enterprise. With a current deep, broad and gentle, this great stream recalls the tribute of Denham to the Thames, far more appropriate to the American than the English river:

Its depth is sufficient for all the vessels that navigate the lakes, while its broad expanse and the mighty volume of water it receives and pours out, announce it as one of the great arteries of the earth, formed to maintain that circulation which is essential as well to the order of nature as to the improvement and civilization of the human family. It possesses one peculiar and invaluable feature, it is subject to no periodical elevation or depression. As it is to day, so is it, with slight variations, at all times. The falling of the rain, and the melting of the snows, which elsewhere cause the streams to overflow their banks and to carry terror and distress in their impetuous course, are rendered harmless by the great reservoirs above us, which equalize the supply and demand and thus prevent some of the worst effects of the extremes of wet and dry seasons.

There is no need that I should recapitulate the rewards that our peninsula has already secured to those whom the "lines" have already fallen here; and that it continues to offer to all who seek comfort and independence from the life of the husbandman, under the most favorable circumstances, of soil, of climate, and of position, that can excite the hopes of the emigrant or stimulate his exertions. And the progress and prosperity that mark our whole district of country, furnish the best commentary on its adaption to the wants of society, and its capacity to provide for them easily and abundantly.

With pride and gratification may we point to our own city, spread out before us, and which is becoming every day more worthy of its splendid natural situation, and of its claim to be one of the principal marts of business in all this extensive region. Its noble and capacious harbor, its intermediary position between the upper and the lower lakes, commanding the communication between them, its relations to the great wheat-growing portions of the State, of much of which it is the natural commercial depot; and the enterprise, capital and industry already accumulated and in active operation within its limits, sufficiently explain the causes of its present prosperity, and justify the most sanguine expectations of its future progress. All the signs of a prosperous community are around us, and yet how short the period since this very place was the advanced port of civilization, with scarcely a white man between here and the Pacific ocean—a secluded nook in the great primeval forests which extended across the continent, apparently impervious to human civilization, and sheltering

in its recesses a fierce and intractable foe, who defended his heritage with constancy and courage, adding the cruelty of man to the obstacles of nature. But a few brief years have passed away—briefer and briefer they appear as time rolls on—since a war party of Indians issued from the forest, and placing themselves between the spot where this assemblage is now listening to the reminiscence of a by-gone incident, removed from us rather by the march of events than by the progress of time, and the inhabited portion of the town, marked their irruption by one of those deeds of blood which have made the history of our frontier a record of trials and sufferings, without a parallel in the progress of society. It is difficult for him who addresses you under circumstances so pleasant and prosperous, to realize that he heard the silence of the little village broken by the discharge of Indian rifles, and to describe the alarm which prevailed, as the strength of the party was unknown, and the country was left defenceless, the troops having been sent away to take part in the operations of the Niagara frontier. But the energy of the inhabitants, few and exposed as they were—most of them descendants of the original French settlers—supplied the place of numbers and experience, and the foe was driven from the settlement to his native haunts in the forest, but not without a conflict with one of the ranging parties, almost within hearing of the town; and there is a small remnant of these brave and faithful citizens, faithful at all times, soldiers in danger, whom I now see near me, making part of the great assemblage, and whom I then saw still nearer, making part of the patriotic band who freely offered their services in that hour of peril, and who will recollect the terror inspired by our return, as the scalp halloo was raised by some of our Indian hunters to indicate the success of the party, and broke the silence of the twilight with that terrific sound, which once heard is never forgotten, and which tells the tale of blood before the bleeding trophies and the victorious party present themselves. Whether the signal was from friend or foe, the helpless women and children, whose husbands and fathers had gone out to defend them, had no means of knowing. But in the terrible uncertainty, many of them embarked in canoes and fled for safety to the Canadian shore. Human nature is seldom destined to a more severe trial than such a state of doubt brings with it. Happily the return of their friends removed their apprehensions and secured their safety.

And such incidents are characteristic of frontier life; and when they shall have been hallowed by time and traditional associations, they will constitute the romance of Indian history, showing the struggles and sufferings which our settlements have encountered in their long and painful march from the Rock of Plymouth and the beach of Jamestown to the shores of that distant ocean, where our fathers' flag and our own is now planted, and where American institutions and American enterprise are doing that deed of power and progress whose consequences no man can contemplate without admiration.

Those who are curious in the statistics of our

territorial progress, have given us calculations of its annual average rate; but without seeking precision in a subject scarcely admitting it, we know that though sometimes retarded and sometimes accelerated by peculiar circumstances, our march has been onward, from the landing of the forlorn hope of a nation when they exchanged the perils of the sea for the greater perils that awaited them in the new world they were entering, down to our own day. But old things are passing away, and that moral energy which seems to be operating with renewed vigor in the great departments of life, intellectual and physical, and which have made our age emphatically the age of progress, is exerting its power on our capacity for expansion, and is now urging us forward in our great mission of replenishing the earth and subduing it, with the rapidity which finds no example in the history of our own or of any country. From the steps of an infant we have assumed the pace of a giant, and are walking through the land in the length of it and in the breadth of it, with a rate of progress scarcely less unexpected to ourselves than astonishing to the rest of the world, who are regarding these new efforts with an interest rarely felt in the concerns of other nations, and which shows the mighty effects they may produce upon the destiny of mankind.

Already have we crossed the continent and established an empire upon the great shores of the ocean of the west, and have laid the foundations—and broadly and deeply too—of freedom, religion, and civilization, in regions acquired but yesterday, but which, till then, had been shut out from all improvement, hell and governed as they were by indolence and ignorance. The impress of our race is now marked in ineffaceable characters, upon a vast outline, and the intermediate space with an energy which loreshadows what we shall do, by what we have done. The mountains, the forest, the desert, present themselves to the indomitable emigrant, not as barriers which say to him "Thus far shalt thou go, and no farther," but as obstacles to be overcome by efforts, more vigorously renewed as the difficulties are augmented. And along the line of a nation's march amid fierce and hostile savages, over arid and naked, herbless and treeless plains and rugged, mountainous cliffs and defiles, man goes not alone, but woman, with her power to endure and her will to exert it, where her affections are engaged, accompanies him in his toilsome journey, to augment his joys, and by taking part in his sorrows, to lighten them. Broad, boundless almost, is the theatre offered to our exertions; gigantic in its features, like the continent we inhabit—far different from those regions of the old world, familiar to us from our infancy, and forever memorable as the scenes of mighty occurrences, connected with the origin and early progress of the human race. In those countries of the east, formerly the cradle and now the tomb of civilization, events were compressed within a narrow compass, and the limited space within which they passed seems utterly disproportioned to the extent they occupy in the history of the world, and to the influence they have ex-

erted upon its destiny. The breadth of our own peninsula is greater than the direct distance from the land of Goshen, the residence of the children of Israel upon the Nile, to Palestine the land of promise and the object of their migrations. And though their journey, by divine command, was circuitous, still the desert where they wandered is less in extent than several of the States of our Union, and ours among the number.

If the little band of self-devoted exiles have become a great people, not less wonderful has been the increase of the means of human subsistence by which our own augmenting numbers have been supplied, and which is pouring its contributions into other and less favored regions of the globe. History tells us, that during the starving time—a period of famine marked by that terrible epithet—the colonists of Jamestown were supplied with food from the bodies of their friends who had sunk under the calamities to which they had been exposed; and we are assured by tradition, that the granary of the Puritan fathers had at one time but five kernels of corn for each individual composing the expatriated colony, now become the millions of New England. But like the widow's meal, the scanty store, by the blessing of God, failed not.

I have said upon another occasion, but the circumstance is so striking and characteristic that I must repeat it here, that I have often conversed with a venerable relative who was a cotemporary of Peregrine White, the first child born to the pilgrims after their arrival on this continent. What an almost appalling idea does this simple fact present, of the progress and prospects of this vast Republican empire! But one life passed away between the first and the latest born of one of its great communities—between its infancy and its maturity—between its weakness, almost without hope, and its power, almost without limits—between its granary holding a few kernels of corn, and all its vast “store houses” whose contents, like that of Pharaoh’s, we must leave numbering, for they are without number, but which supply kingdoms with abundance, and send plenty where the harvest follows not the seed time, and where famine seeks to establish an empire, displaying its powers by its victims and not by its subjects, by the dead and not by the living.

The first want of man is food, and his first care is the supply it. The rude modes of agriculture originally prevailing, have gradually given way to improved systems, combining sound theoretical principles with enlarged experience and observation in the dispensation of nature, an increasing population always presses on the means of subsistence, and if the supply does not augment with the demand, famine, and the terrible evil it brings in its train, will soon come to teach, an ignorant, or oppressed, or an improvident community that it is the province of nature to minister to the wants of man by aiding his exertions, and not to minister to his indolence by rendering them unnecessary. For wise purposes, no doubt, there are regions of exuberant fertility, where articles of food may be obtained without culture, as there are others of irreclaimable sterility, where no indus-

try can conquer the obstacles of soil and climate, and render these stricken portions of the earth desirable residences for the human family. But in the natural, as in the moral world, the system of creation is one of compensations; good and evil go hand in hand together. Where man lives without exertion or industry, he lives without virtue or intelligence, and dies as indifferent to the future as he has been to the past. But where necessity, his real friend, though sometimes apparently a stern one, requires him to labor, he attains his true position, and fulfils his destiny, by the proper employment of his faculties physical and moral, and by their nobler development which is sure to follow. Experience has shown that in the temperate zones of the earth, where industry is essential to subsistence, and where its rewards are ample, there only the human race have attained their true position, and have advanced in that career of intelligence and improvement marked out by the Creator, and the limits of which are known to Him alone. The great deeds, the great names, the great discoveries of the world are there, telling, in language not to be misunderstood, that there is an intimate connection between the progress of the human faculties, and the motives for their exertion.

To increase the quantity and improve the quality of agricultural products, suited to the subsistence of man, and with as little labor as is compatible with the object, should be the great effort of intelligent agriculturists. The progress of tillage is one of the most interesting chapters in the whole record of human society. Its origin is lost in the obscurity of time, and fable has usurped the place of authentic history. That the food of man, in his primitive state, was the spontaneous products of the earth, we are equally assured by scripture and by reason. It would be a curious subject of enquiry to ascertain, if the means were in our power, the various steps by which the acorn yielded its place to more palatable and succulent food, and finally to the cereal grains, and to bread their best form, the great staple of human support. But the arts of destruction have already exerted so much more power over the imagination than those of preservation, that while battles, and battle fields, and conquerors, crowd every page of history till we have become almost as undistinguished as their victims, we are compelled to group our way amid the mist of fable and tradition, in a vain search after the progress of the human intellect, in those discoveries and improvements, which make an essential part of civilization itself, and many of which must have been as early in their introduction as they have proved general in their use. The moralist and the philosopher have equally exposed the tendency and the folly of this love of military glory, but it is deeply enrooted in human nature, and operates as powerfully at this day as in the earliest times, when a plastic mythology gave to the victorious destroyer a niche, a statue, an altar in the Pantheon of the gods.

It were a rash attempt to undertake to set limits to the productive power of the earth. It has been greatly increased by human knowledge and labor; and the discoveries of modern science,

and especially of chemistry, have still farther enlarged its sphere, and promise yet more beneficial results for the future.

We know but little of the agriculture of the ancients. The scattered notices of it which have survived the lapse of time, are meagre and unsatisfactory, and certainly inspire but little respect for the practice or practical philosophy of the cultivators of the soil. The twelve yoke of oxen that Elisha left in the furrow, when called to a higher duty, furnish a very unfavorable commentary upon the quality of the Jewish stock, as well as upon the instruments of tillage, which required such a prodigious waste of animal labor.

For ages agriculture was stationary, and probably advanced but little from the time Virgil wrote his *Georgics*, till the last century. We are told by the best authority, that in Scotland, within one hundred years, "there was no rotation of crops; fallow was unknown except in one or two counties; the processes and implements of husbandry were alike wretched; the occupiers were in extreme poverty, and famines were every now and then occurring, that sometimes laid waste extensive districts." That "returns were about three times the seed," and that so late as 1725 "a field of wheat of eight acres in the vicinity of Edinburgh, was considered so great a curiosity that it excited the attention of the whole neighborhood, and that numbers of persons came from a great distance to see it."

And if such was the condition of one of the most enlightened countries of Europe, we may well believe, what indeed was the fact, that elsewhere the state of agriculture was equally deplorable and degrading, and well is it for the cause of humanity, that improved systems of tillage have been adopted, and the quantity of the food greatly increased to meet the augmenting demand of an enlarged population, and thus spare us from famines like those which were the scourge of the world in ancient and medieval times.

The causes which led to the rapid improvement of agriculture in portions of Europe, after it had been stationary for centuries, I shall not detain you by investigating. They are connected with the general progress of opinion, the melioration of political institutions, the wonderful advance in all the arts and sciences, and especially in those which relate to husbandry, and with the new spirit of intercourse which has brought the nations of the earth much closer together, and made them much more useful to one another than at any former period in their history.

Time and reason have banished, not all indeed, but many of the idle and superstitious notions which once prevailed, and which superceded both the theory and practice of husbandry. Men trust more to their own observation, and to the deduction of enlightened science, and less to those legacies of a dark period, which so long held in bondage the cultivators of the soil. The moon is left to perform the proper functions assigned to her by the Creator, in the firmament of Heaven, and is relieved from that supremacy over the vegetable kingdom, which made her the great calendar of the farmer, and gave to her various phases more power over the world of vegetation, than climate, soil, or cultivation.

Intimately connected with the increase of agricultural products is the important question of their relative adaptation to the purposes of human subsistence; and both of these interesting objects of enquiry have recently engaged the attention of able and scientific observers, and the progress of the investigation has been equally honorable to them, and satisfactory to all who take an interest in this great department of human concern. Researches into the true principles of vegetable physiology have been pursued with admirable judgment and success, and have opened to us new and enlarged views of structure and organization of plants, and of the supplies necessary to their growth and subsistence, as well as those they furnish for the support of man.

And it is here that chemistry, especially by the improved processes of analysis, has shown itself the efficient handmaid of agriculture. It has taught us that the incombustible or inorganic portion of plants, the ashes, small indeed, not exceeding two per cent. in weight, but essential in the economy of vegetation, is derived from the soil, while the organic portion, the carbon, the hydrogen, the oxygen, and the nitrogen are imbibed by the roots and leaves, and conveyed by the proper vessels, in a manner unknown to us, to every part of the plant, and incorporated by assimilation with the new body into which they enter.

How far these enquiries may be extended, and to what hidden operations of nature they may ultimately conduct us in the progress of human knowledge, it were rash to undertake even to conjecture. That we have not reached the boundary which divides what may be known from what must be unknown, is evident from all that is daily passing around us in the world of matter. The limits may be far distant, and no doubt important developments will hereafter reward the zeal and industry of philosophical enquirers, and perhaps give us plain views, where we have now but imperfect glimpses, of Jehovah's kingdom. All this is, however, wisely concealed from us, that presumption and despondency may be equally repressed. But we may safely assume, that many of the final causes and of the secondary agencies also, which govern the vast creation of God, and preserves that wonderful harmony in his works by which the elements of destruction are forever pressing upon those of preservation, but can never pass the limits prescribed to them by Him who assigned each their proper functions in the economy of nature, and has made these hostile principles to contribute to universal order, if ever made known to us, will probably only be made known in another and higher state of existence. In the whole range of the visible creation, there is no brighter spot than this for the eye of man to rest upon, nor one where the wisdom of the Creator is more wonderfully displayed; The original impulsive power, and the power of gravitation, are so combined as to retain the planetary bodies in their orbits, and to conduct them along their trackless paths in the heavens with unerring precision. There they have been and are, and they will be till their great work is ended. And yet how admirable the adaptation by which

these mighty masses are guided and controlled, and the agencies in operation balanced and restrained. The predominance of one would bring these worlds together, involving by their contact the utter destruction of our system, while that of the other would release them from the bonds of mutual dependence, and send them to wander in the boundless regions of space, where even the human imagination could not follow them in their endless career. And the same wisdom is displayed in the natural operations around us, and in the midst of which our life is passing. A change in the constituent principles of the atmosphere, an undue superiority of one of its elements, would render it unfit for respiration and incapable of performing the functions assigned to it. Fire, water, animals, plants, the whole economy of nature indeed, would feel the effects of such a modification, and of the revolution it would bring with it. The ocean and the atmosphere are kept within their respective limits; rain and sunshine follow each other in beautiful succession, and the whole order of the universe is maintained by its antagonistic principles, thus harmoniously blended and made to work in unison together. It is not the wisdom of man, but the ordination of God which sets bounds to the fecundity of insect life, and spares us from inflictions like those which visited Egypt when her proud monarch hardened his heart against the divine command. What would avail human might if the barriers against indefinite multiplication were broken down, and if the locusts should cover the face of the earth so that there should remain no green thing? In such a warfare powerless would be the human strength against an enemy whose numbers would mock to scorn the efforts of man. And thus the hail, or the wind, or the rain, if not held in check by a superior power, would rule the ascendent and scatter destruction over the fair face of nature. But a far mightier than they have set bounds to their destroying agencies, and each furnishes its contribution of good to the great work of all.

The impressive language of reproof addressed by the Almighty to Job, may be addressed to every son of Adam. "Where wast thou when I laid the foundations of the earth? declare, if thou hast understanding." "When the morning stars sang together, and all the sons of God shouted for joy?" The human faculties are bewildered in the contemplation of the wonderful power of the Creator, and still the more it is made known to us by a knowledge of his works, by the knowledge that there are worlds of animated beings around, forever invisible to the naked eye, but each enjoying his allotted share of happiness; while far beyond us, in the regions of space, are those shining orbs whose object, to our vision, is only to deck the sky with glittering points, but which reason and analogy equally teach us are destined to far nobler ends, to the performance of important functions in the scheme of creation, and probably peopled with intelligent beings, perhaps better fitted than we are to comprehend these miracles of creative power; a power felt in the regions of illimitable space, equally inaccessible to human vision, and the efforts of the human comprehension.

"We cannot go
Where universal love smiles not around,
Sustaining all yon orbs and all their suns;
From seeming evil still educing good,
And better thence again, and better still,
In infinite progression."

The researches of modern chemistry have been successfully directed to two objects of enquiry, equally essential to a just and rational view of the true theory and practice of Agriculture. One is the elements which furnish the proper nutriment to the animal system, and the other, the plants in which this papulum of life is most abundantly found. Experiments skillfully directed and steadily pursued, have already conducted us far in this interesting field of investigation, and strange is it, that it has been but recently explored in the real spirit of inductive philosophy. Scarce a century has elapsed since much has been made known of the true structure of plants, and many important points of vegetable physiology, even among those most accessible to daily observation, are yet involved in doubt and dispute. Chemistry has been far behind the sister sciences, and it is only with the commencement of the present century, that commences that era of its advancement, when the labors of analysis, and the principles of induction rescued it from the hands of the alchemists, and have given it the dignity of science, contributing not less to the comfort of man, than to a true knowledge of many of the most interesting operations of Nature. And it is by no other process that we can expect to obtain just conceptions of the nature and properties of undecomposed substances, which in the present state of our knowledge, may be called elementary principles and by whose means all living organized bodies are constituted and perform their functions. The boldness, the blind rashness, rather, of man, leads him to reject the slow process of following nature, step by step, and adding fact after fact to his store of knowledge, and then combining these together, and deducing such general laws, as it may be given to him to develop and comprehend. For centuries the theory came first, and then the facts were sought to support it. But though this scientific empiricism is not yet wholly banished, it is yielding to a more rational spirit of investigation, and the reward has been found in that wonderful advance of knowledge in the natural sciences, which has made the age in which we live, eminently a practical one. Our first business is with the operations of nature, and after that with its causes and effects. And it is obvious that is far easier to penetrate into the former than the latter, and how the functions of organized matter go on, is a problem of easier solution than why they go on. The general process of vegetation meets us at every step of life, and observation and experience have revealed many of its principles. We know that seeds germinate, that the sap circulates and that the body of the plant is gradually developed by assimilation, and we have ascertained many, both of the laws and of the organs, by which these operations are conducted, and it is in this great and useful field of enquiry, that our labors can be most successfully exerted. All beyond it is a subject of speculation; of deeply interesting speculation, indeed, in its pursuit, but

too doubtful in its result to encourage us in the task of exploring it. What are the means by which the great operations of nature are conducted, through the vast domain of creation by which the principle of vitality, animal and vegetable, is infused into organic matter, by which, in fact, the Almighty Will does its work; why, for example, there is a tendency in all bodies towards one another, agreeably to a law we have discovered and demonstrated gravitation, but whose mode of action we cannot even conjecture—these are enquiries which, in the present state of our knowledge, we have no encouragement to investigate. Man, and the little experiments he can make in the narrow circle that encompasses him, sink into utter significance before the overpowering considerations that force themselves upon us in the contemplation of these manifestations and modifications of Almighty Power. Silence becomes wisdom. But whatever revelations the future has in store for us, it needs none to tell us that, the clearer becomes our vision of the wonderful scheme of creation, the greater will be our admiration of the wisdom and goodness that designed it, and of the power that made and preserves it.

But we must return from this digression to that branch of our subject more immediately before us. I have already said that practical chemistry had been investigating the proper nutriment of animal life, and the plants which most abundantly supply it, and that important discoveries had followed these investigations, peculiarly valuable to the farmer who desires to conduct his operation, not only profitably but intelligibly. It is ascertained that among the edible plants there is a great difference in their capacity to provide for the subsistence of man. They yield the principles of nutriment in very different proportions, and this consideration is a most important one in the choice of their culture. Of the bulbous roots naturalized in our country, the potato is by far the most valuable, analysis showing that one-fourth part of it may be considered a nutritive matter. The carrot, the parsnip, the beet and the turnip are less valuable, but still important objects of cultivation.

But the family of the cereal grains is that which is best adapted to the use of man, as it is by far the richest in nutritive qualities, and has constituted the principle article of human food among the civilized nations of the world. Analytical chemistry thus comes to add its testimony to general experience, and to make known to us one of the causes of this preference. At the head of this family is wheat, whose introduction into Greece was rewarded by divine honors conferred on the benefactor. Like the horse and the ox, it is the universal companion of civilized man, and has accompanied him in his migrations around the globe. It possesses a greater proportion of the nutritive principles than either of its congeners, or any other vegetable production known to us. Careful experiments have been made with a view to practical results, and tables prepared, showing the nutritive properties of plants used as food, either for man or for the domestic animals. It is a curious as well as interesting subject of enquiry, and which should en-

gage the attention of every intelligent farmer. It lies at the very foundation of agricultural improvement.

The knowledge we have gained of the food of plants, exhibits one of the happiest applications of chemistry to vegetable physiology, and its investigations have opened new views in that great department of creation, leading, with other recent discoveries, to the conclusion, that there is a striking analogy subsisting between the two living kingdoms of Nature, and that simplicity is no less an attribute than wisdom in the works of Almighty power. That some soils are more favorable than others to the production of plants, and that their growth may be simulated by adventitious substances, are facts that experience must have taught in the very earliest stages of husbandry. But it was reserved for a late period, for our own indeed, to give us a reasonable insight into some of the principles of vegetable organization, which regulate the germination, the growth and decay of plants, and which enable us to understand how we may best aid the operations of Nature. We know there are organs performing their assigned functions, common to all vegetation, and essential to its growth and development. Having ascertained that plants require food, and that they possess proper organs to prepare it, and to convey it to its destined work, where it is incorporated, by some process inscrutable to us, into a body, we have the way opened for an enquiry into the nature and properties of this nutritive matter, and of the practical applications of the principles evolved to the purposes of the farmer. The functions of vegetable life are admirable and admirably performed, and are forever in operation, unchanged and successfully, upon a world of vegetation, which, in its vast extent and variety, and in the countless subjects it contains, beyond the faculties of man to conceive, is among the most wonderful displays of creative power. Within the range of personal vision, how vain the efforts to conjecture even the number of plants that start into life and then disappear, to give place to their successors in this ceaseless round of creative organization. But who shall count, who shall even dare to imagine how many individuals compose that mighty mass of vegetation which covers the face of the earth, and penetrates far into the recesses of the sea? It is not given to man to enter even the threshold of such a work. It is before us and ever within our reach, but forever inaccessible to us. By observation of the differences appreciable in the structure and properties of plants, botanists have succeeded in arranging them into separate classes, by which they are brought, in some measure, within our grasp. These classifications are, however, artificial, though founded on natural phenomena, and are designed to introduce order into the consideration of a vast subject, and thereby facilitate our acquaintance with it. The roots, the body, the bark, and the leaves of plants, and the flowers and fruits in the season of fructification, are vegetable productions with which we are all familiar. Much of the internal structure, the wood, the pith, the sap, and the tubes are equally well known, and some of their functions have been long ascertained, or

rather conjectured with reasonable certainty. But it is only recently that much progress has been made in this branch of natural history, and that we are beginning to understand, not indeed, the organic laws of vegetable life, but many of the functions of vegetable organization, and the processes by which the great work of production goes on.

The ascent and descent of the sap, analogous to the circulation of the blood in the human system, the vessels through which it passes, the functions of the leaves, resembling those of the lungs, by which the vital fluid is divided between two sets of vessels, one transpiratory to exhale its watery parts, and the other secretory to conduct the residue, after having undergone the necessary change, through the proper vessels to continue its prescribed operations in the economy of nature, the presence of extraneous matter, of silicious substances for example in the epidermis of plants, all these and other discoveries have enlarged the sphere of our knowledge, and have given us satisfactory conceptions, instead of vague conjectures, of many operations in the progress of vegetation. They promise yet brighter rewards for future exertions. The elaboration of plants by different substances contained in the sap, and possessed of various properties is truly a wonderful process. We have no conception how the same vessels select from the same materials the proper alimentary matter, and reject what is unfit, nor how these elements enter into the new body, and finally offer their services to man in a new form. Investigations into the cellular structure of plants, hold out the prospect of important accessions to our present knowledge of vegetable physiology, connected as they are with some of the most difficult questions concerning the organization and growth of vegetation. The cells, it is now conceded form the basis of all plants. Their minuteness and the rapidity of their development are equally beyond our comprehension, for it is estimated they average but 1-500 part of an inch in diameter, giving more than one hundred millions to every cubic inch, and that in some of the fungi they are generated at the rate of fifty-six millions in a minute. Such estimates are far beyond the grasp of the human faculties, producing shadowy impressions, rather than adequate conceptions, but vaguely conjectural as they must be they are yet sufficient to satisfy us, that we move in a world of miracles, from the cradle to the grave, not one of which perhaps it is given to man fully to comprehend, and that the wonderful processes, by which this mass of vegetation exists and is maintained, are governed by laws, that lie far beyond the present boundary of our knowledge. And these minute vesicles are membranous, each shut out from all others, and in plants of the lower order both absorbing and assimilating, while in those of superior structure, some of the cells absorb the nutriment, while others incorporate it into the body of the plant. The mind is lost in the effort to conceive the number of these microscopic agencies, even in a single herb, and yet they are the materials of which the whole vegetable creation is constructed. And each of these ministers of Almighty

power invisible to the naked eye, has a kind of independent life, with its own proper functions, the whole forming together in some mode inscrutable to us, the life of the plant, and giving to it its ligneous substance, and thus while it is constituted a single body it contains within itself an infinite number of separate agents, efficiently but mysteriously operating together. Countless as the sands upon the sea shore, swept by the advancing and receding tides, but ever barren and indestructible. But what are they to this multitude of living organs, hundreds of which a grain of sand would cover, swept by a tide that ebbs not, the onward progress of creative power, coming into existence and passing from it, to be forever replaced by kindred tribes, thus calling death from life and arresting destruction by never ending reproduction?

And thus is the earth covered with EVERY GREEN THING, and with this uniformity of structure all the diversified forms of vegetable organization almost infinitely various are brought into being and made subservient to the purposes of man. Among those gifts of nature is our maple sugar, and elsewhere is the Caoutchouc tree yielding that most useful substance India rubber. The poppy, whose concrete juice is opium, an important article in our materia medica, the Ajuapar, whose sap furnishes an active poison, used to impregnate the rivers in order to obtain the fish; the Bambusa Guaduas, which sometimes reaches the height of one hundred feet and whose stem is hollow and divided by joints at short intervals, each of which contains pure limpid water invaluable to the traveler in hot and arid regions; and the cow tree, a remarkable production, which supplies a milky juice similar in its properties to the milk of animals and extensively used by the inhabitants, where this beneficent production abounds. But the whole vegetable world offers no subject more worthy of contemplation, than the *Cocus murici*, a tree found in the tropical regions of South America. Its green shoots serve as aliment and it furnishes bread and wine, and oil, and fruit, and materials for clothing, mats, hats, and sails for ships, and for dwellings. A wonderful illustration of the power of nature to evolve substances so numerous and so various by the ordinary process of vegetation, from the same alimentary matter, which everywhere furnishes the nutriment of plants. The application of the principles deduced from the researches of scientific observers is not less important to the purposes of the practical farmer, than is the increased knowledge of the beautiful system of vegetable life to his intellectual advancement. That plants require proper food for their growth, and and for the ultimate development of their properties, and that this food is secreted and sent on to its work by vessels variously constituted for the different functions they have to perform, and that this organization is not merely mechanical, operating by chemical affinities and laws but physiological, embracing a principal of vitality, low indeed in the scale of living being, but mighty in its extent; these facts, now well established, and daily opening more and more to us are intimately connected with the whole process of cultiva-

tion. "Stones grow," said Linnaeus in his graduation of inorganic and organic forms, "plants grow and live, and animals grow, live, and feel." We know that where the nutrimental principle is most abundant, and judiciously applied, there it will produce a corresponding effect upon the body that imbibes it. We are thus brought to a consideration of the nature and condition of the soil, of the properties and preparation of the materials for manure, the most important part of practical agriculture. It is a subject, into which I have no time to enter. I touch but the most general outline. The system of creation is one of life and death, following each other in never ending succession; a system of production, of destruction, and of reproduction. It were idle to speculate upon the final cause of this ordination of nature and worse than idle to endeavor to investigate the purposes of the Creator in this infinite multiplication of organic beings, performing certain assigned operations, and then disappearing to give place to their successors. From the flower that blooms, but to die, to the giant of vegetation, the monument of the ages that have swept over it, from the insect, which sports its brief hour in the sun shine, fulfilling the duty imposed upon it and then vanishes from existence, to

"that sea-beast

Leviathan, which God of all his works

Created hugest that swim the ocean stream,"

and to man, the visible head of this wonderful creation, to whom was assigned "dominion" over it, all, all proclaim the universal decree, THAT AS THEY CAME FROM DUST THEY MUST RETURN TO DUST. When we know not, but we know it will be soon, for brief is the interval, even when most extended, which separates us from this momentous change, ordained by Almighty wisdom. But the most superficial observation shows us, that a principle, looking to the greatest share of enjoyment by sentient beings, rational and irrational, compatible with their condition, and to its greatest diffusion, by the multiplication of individuals, pervades the system of nature; and a beautiful manifestation of the power and goodness of God. If death comes to all, it is but to give place to renewed life, thus fulfilling the great law of existence. We know but little, next to nothing indeed, of the true elements of matter. Those are termed such, which baffle all our efforts at decomposition. At the commencement of the present century there were twenty-nine of these elementary bodies, and now there are sixty-three, showing the great progress of practical chemistry. Their number number changes with our chemical knowledge; but we must avoid the error of supposing that their enumeration makes known to us the true primordial substances, which constitute the basis of the material world. It is a knowledge we may never reach. But however this may be, and whatever is the principle of vegetable nutriment, experience shows that it is exhausted by the supplies it furnishes, and then becomes useless, and must be replaced by substances in which it abounds. And we have thus the theory of soil and manure, and every agricultural observer should keep it in view

in the preparation of his ground, in the application of fertilizing matter, and in the various operations, connected with the growth of the crop. It is by combining observations together, that we give them their true value and learn the more general laws, that control the phenomena of nature.

I have already said that the field of agricultural improvement has no prescribed limits that human vision can rest upon and we are thus encouraged to extend our researches with rational prospects of success. And as an example of the effect of cultivation, it is stated by Boussingault that a beet seed weighing but the fraction of a grain, has produced a beet weighing one hundred and sixty-two thousand grains, or twenty-eight pounds. But though we know not how far we can go, we know where we cannot go. We know that we can increase the size and improve the properties of plants by judicious culture but that we cannot so change their essential nature, as to confound the established order of creation, and to destroy the boundary that divides the various species by new families, called into existence by man. Reason, and analogy, and universal experience from the earliest periods, teach us that our efforts at melioration should be confined within their legitimate limits; the attempt to improve the qualities of existing plants and animals, and not to invade the province of the Creator, by rash endeavors to multiply, with the faculty of reproduction, the forms of matter, endowed by Him with life. If we have reason to be proud of the advance of modern knowledge, we have reason to be humble, when we see the presumption with which it is too often applied. Not content with the proofs of an intelligent Creative power, which accompanies us from the cradle to the grave, and which revelation and experience equally announce, we are seeking with blind rashness to reject the true origin of this great scheme of Almighty wisdom, this union of mind and matter, and to find some kind of fortuitous creation, some shadowy plan of progression, by which the most imperfect organization gradually rises in the scale of being, and step by step, spontaneously and by its own inherent force, ultimately assumes the most perfect forms of animal life.

There is a tendency not to be misunderstood, towards a cold and heartless materialism in many of the physical investigations of the present day, and there is a tendency, equally obvious in moral investigations, to be carried away by new and strange doctrines, one of which teaches us, as its Hierophant announces in a work, captivating for its boldness and novelty, that all distinction between physical and moral is annulled, that "grades of mind, like forms of body, are mere stages of development," and that there is no essential difference between man and beast. And unfortunately the restraining power of the Christian religion upon the hearts and minds of men has been weakened by a similar spirit of presumptuous research, neither directed by wisdom nor conducting to truth. From the great storehouse of German metaphysical theology, where dialectic dexterity has more votaries than a simple and earnest spirit of enquiry, strange words have is-

sued, rationalism and super-rationalism, naturalism and super-naturalism, super-natural rationalism and rational super-naturalism, transcendentalism, and many a kindred weapon of controversy, well calculated to impose upon the human judgment and to lead captive the human imagination by an assumption of learning and by puerile logomachies; all these and similar verbal subtleties, worthy of the Stagyrte, belong to the various schools of theology which convert the gospel of Jesus to their own views, rejecting the true scheme of salvation, or accommodating it to the corrupt heart of man. The Christian religion becomes a myth or a fable, and its divine author a fanatic or an impostor, who healed the sick by interposing at a favorable crisis of the disorder, when nature had herself commenced the cure, and who raised the dead by calling them to life, at the very moment of recovery from the effect of a cataleptic attack, and whose other miracles were performed by similar coincidences, or not performed at all. And our faith is to be shaken in the life and death and merits of our Saviour, and the hopes of his promises to the living and their consolation to the dying, are to be sacrificed to these dreams of a morbid imagination, which belong to a world of peculiar ideas, and not to our world of action, and which have no sympathy with human nature, and no prospect beyond the narrow boundary of physical existence.

Let no man delude himself with the notion that when he has once mastered, if master he can, these Shibboleths of a barren controversial theology, he is better fitted in head or in heart to study the history of the Redeemer's mission, or that these and other "great swelling words"—

"For all this tedious talk is but vain boasi,
Or subtle shifts conviction to evade"—

have enabled him to gain one step forward in the path of Christian knowledge.

The human mind is strangely constituted; forever roaming in the fields of enquiry, it is too often disposed to push its investigations beyond the boundaries assigned to man, and to believe nothing it does not comprehend. It has been well said of the disciples of this school, that "to be defied to the face by any stiff-necked problem which this poor universe can produce, is a humiliation to which they are not accustomed to submit." As the nature and attributes of the Deity are beyond their understanding, His existence is beyond their belief. They belong to the class so well described by Pope:

"Who boldly take the high priori road,
And reason downward till they doubt of God."

A theory of "development," as it is called, not less bold than startling, has been advanced in a work recently published, and entitled "Vestiges of the Natural History of Creation," and which, according to an eminent Scotch Review, has been received with a "sudden run of favor," while an English Review of equal authority considers this book "the best adapted of all the productions of modern literature to give a right direction to the philosophical investigations of the highest subjects of human interest." This theory authoritatively announces that "the whole train of animated beings, from the simplest and oldest

forms, up to the highest and most recent, are then to be regarded as a series of advances of the principle of development, which have depended upon external physical circumstances, to which the resulting animals are appropriate." And thus the mysteries of the universe are unfolded by the mystifications of a false philosophy, and men who cannot believe in a Creator, believe in such a creation as this, in spontaneous generation and in the transmutation of species. Verily, scepticism and credulity are very near neighbors in this mortal frame of ours, and the old Latin saw "Credo quia impossibile est," I believe because it is impossible, is as true as it was twenty centuries ago. We have to judge between the Redeemer of man, who tells us that the very hairs of our head are all numbered, and that not a sparrow falls upon the ground without the knowledge of our Heavenly Father, and the Prophets and Neoplatonists of this new faith, who assert that "the creation of a lower animal is an inconceivably paltry exercise of Almighty power."

And we are called upon to believe that our progenitors were monkeys, and that our posterity will be angels, or something higher in the order of nature, by successive transformations, the result of "a creation by law," by which "organic life presses in," (or in other words creates itself) "wherever it has room and encouragement and accommodates its form to suit the circumstances," (this is no less clear than satisfactory) and "a superadequacy in the measure of this underadequacy" would enable a goose to give its progeny the body of a rat, and thus "one species gave birth to another till the second highest gave birth to man." And we are told that our horses were vast Packy dermata, (names are things, said Mirabeau, and when they are not, they are too often their substitutes,) huge, half-formed, living monsters, stretching like the fallen Archangel of Milton, "many a rood," with three toes and no claws, eating herbs as strange as themselves, and that they will march steadily onward in the scale of being, perhaps till they become able, like the winged horse of the ancient mythology, to carry us through the fields of air, instead of the fields of earth, with improved powers and enlarged faculties, suited to a higher sphere of action; and that wheat was once a fern or seaweed, and will in time become an ambrosia-bearing plant, as far exceeding its present condition as it is now advanced beyond its original prototype. fitting food, it may be, for the human race, when it has taken its higher position in that ascending series of progression and development, to which it is destined by its consubstantial system of psychology. Till that era arrives, thus foretold by this new faith and foreseen by these new prophets, our agriculture will be guided by the true principles of observation and induction, and without the vain and impious effort to break down the barriers established by the Creator, and to usurp His province in the government of creation.

Reason and revelation equally assure us, that the great first cause is every where, and always in operation either primarily and by its own agency, or secondarily and by the agency of laws it has established. And it is not given to man to comprehend where the one ends or the other be-

gins, or how the system of causation commenced its work, or still goes onward in its task:

"Earth, on whose lap a thousand nations tread,
And Ocean brooding his prolific bed,
Night's changeful orbs, bright stars and silvery zones.
Where other worlds encircle other suns,
One mind inhabits, one diffusive soul
Wields the large limbs and mingles with the whole."

The fossil bones of antediluvian monsters in rocky strata, and their foot marks upon indurated clay, strange hieroglyphics upon the monuments innature, written in a language which man is striving to decipher, have been resorted to in proof, or in illustration of this scheme of creation, equally contradicted by the Book of God's Word, and by the Book of his Works. There are far better "vestiges of creation" in his foot marks around us, in His steps upon the ocean and land, impressed upon the whole organization of Nature, than these researches, too often merely conjectural, into the remote condition of the globe, can furnish. They are interesting, as are all the facts connected with the natural history of the planet we inhabit, but worse than useless, when used to shake our faith in the relations of Christianity or in the attributes of its divine founder.

I have presented for your consideration, for your cooperation, indeed, various suggestions connected with the advancement of the agriculturist; the education, sound, practical and enlarged, of that vast body of our youth, who form, and are to form, the farming interest of our country, an interest that embraces more than one half of our population, and a still greater proportion of the permanent influence to which our social and political institutions must look for support in those periods of their trial, which have come upon other nations; and have now come upon us. The cultivator of the soil is engaged in one of the noblest occupations that belong to the whole circle of human employment. In replenishing the earth and subduing it, and in multiplying every herb-bearing seed, and every tree which is the fruit of a tree yielding seed, all of which were given to man "for meat," before he left his primitive residence, where God first planted him. He deals with organic life, with its production, its improvement, its multiplication, with the means of subsistence for that great family of rational and responsible beings which "has dominion" over all that the earth brings forth, as well as over every living thing that moveth upon it. His existence does not pass in crowded cities, the works of man, surrounded with the physical and moral ills which a dense population is sure to bring with it. He walks abroad among the works of God, reading the great book of Nature, whose every page is filled with lessons of wisdom, written in characters that no man can misunderstand, but the fool that saith in his heart, there is no God.

The light that shines, the wind that blows, the rain that falls, the phenomena of nature, are the companions of his daily walks and works; not mere objects of curiosity or even contemplation, indifferent or interesting, as he neglects or observes them, but ever active agents in the process of production, co-laborers with himself in the domain of nature, performing the functions assigned

to them. "In seed time and harvest, and cold and heat, and summer and winter, and day and night," which we are told by Him that knoweth and who ordaineth it, shall not cease while the earth remaineth.

The work-shop of the farmer is not a narrow and heated room, shut out from light and air, but broad fields and open sky are the witnesses of his labors, and it is not mere inert matter that he deals with, calling into exertion his mechanical powers only, but one of the great kingdoms of living nature, furnishing subjects of ceaseless observation and wonder to the highest intellect, and forever inviting the researches of man, as well by the enlarged views it presents of great natural operations, as by the effect of this increased knowledge upon the heart and understanding, and by the rewards which are sure to follow the exertions of the enlightened cultivator.

From the hyssop that springeth out of the wall to the cedar of Lebanon, from the lowliest plant that creeps into life, to the giant of the forest that rears its head above the sea of vegetation, resisting the winds of Heaven for centuries, there is a mighty mass of organized forms endowed with a principle of vitality, which proclaim the power of God, and invite the researches of man. Wonderous are its extent, its variety, the laws of its being, the purposes it fulfils, the mode of its production, its existence and its reproductions and the admirable organization by which its functions are performed, and inorganic matter converted into the beautiful foliage, which covers the face of the earth, rejoicing the eyes and the heart, and ministering to the wants of sentient creation. And the life of the farmer passes in the midst of this great family of nature. It is his daily care to cultivate, to increase, to improve, those branches of it which are most necessary for human comfort and subsistence; and it should be his pleasure, as it is his duty, to observe the processes of vegetable life, the habits of plants, and the laws regulating their organization, that he may know how to make the earth bring forth by handful, like the seven plenteous years of Egypt, and still meliorate his practice as he extends his knowledge. Who does not see that here is a scope enough for the most powerful intellect, the most enlarged understanding? The practical study of the works of creation, admitting the application of advanced science, as well as the highest powers of personal observation, and yet since the earliest period, indeed, since the acorn gave place to wheat as a principal article of subsistence, a delusion has been propagated, not universal indeed, for there are honorable exceptions, both in ancient and in modern days, but far too general, and so firmly maintained that even now it exerts a powerful influence, and is but slowly yielding to the intellectual progress, which marks the age in which we live. The Book of Ecclesiasticus, though excluded as apocryphal from the canon of scripture, is of ancient origin, and no doubt depicts truly the customs and opinions of the Jewish people. It ministers to this mischievous prejudice, and presents a melancholy picture of the intellectual condition of the Hebrew husbandman.

"How can he get wisdom, that holdeth the

plow, and that glorieth in the goad; that driveth oxen, and is occupied in their labors, and whose task is of bullocks?"

"He giveth his mind to make furrows, and is diligent to give the kine fodder."

And so because a man is brought by his daily occupation into the world of nature around him, with organic life, animate and inanimate, the noblest works of the creator, it is asked emphatically "How can he get wisdom," as though the best school for its acquisition were not an enlarged sphere of observation and reflection. It is not difficult to discover, in the progress of social and political institutions through the world, the true source of this deplorable error. Labor is dishonored and discredited when it brings degradation, legal or conventional, when the mere of contempt is upon forehead of the laborer, and he feels, and all feel, that his place is considered the lowest in the scale of human employment. Thank God this state of things is unknown in our country, but it has existed and yet exists elsewhere, and its effects have extended beyond its immediate circle by the prejudice respecting the education of those engaged in agriculture, which it has created and fostered. Where the owner of the soil and the tiller of the soil form separate classes, divided by legal or social barriers, where the institutions of the country operate to accumulate land into masses, still augmenting as wealth increases, and repress all tendency to distribution by laws of primogeniture and by the other legal machinery, by which the strong are made stronger, and the weak weaker, where the many sow without reaping, and the few reap without sowing, who can wonder that the intellect is without cultivation, as industry is without encouragement? The wretched institutions of the middle ages, by which power and property were wrested from the mass of the people, from almost the whole people, indeed, and concentrated in the hands of the feudal nobility, and were guarded by the iron hand, and by the sterner rule of legal exactions and penalties, made part an essential one, too, of the political condition of the European nations, and yet survive in full force in some of them, while in others they have yielded to the march of events, but in all, their impress is marked upon the constitution of society and exerts a powerful influence upon the whole social system. And thus was degradation brought upon the laborer, and disgrace upon his occupation, and the impression was left as a legacy which time alone can remove, that he who tills the soil pursues an employment which if not totally inconsistent with any advanced state of mental improvement is better without it, and should content himself with holding the plow and talking of bullocks.

"Strong as his ox, and ignorant as strong."

Many deep rooted prejudices have passed away in this country, and many others are yet destined to follow them. There is no miracle like that of old to turn the shadow backward, which marks the progress of these events. This prejudice against the necessity of education, of an enlarged education for the agricultural class of society, though it has not wholly disappeared, has

waned before the light of knowledge, and will, ere long, be remembered but among the perversions of human intellect. In no country on the face of the globe are there such motives as here, for the early diffusion of information among this great body of our fellow citizens. Land is open to all. There are no barriers which guard it against the approach of honest labor. He who does not acquire it, is prevented only by himself. He either does not desire to live the life of a farmer, or he is wanting in that industry and good conduct which open all the avenues of property to all who seek them. The relation of the landlord and tenant in the cultivation of the soil, if not unknown, is so limited, that it creates no social castes divided by those conditions, and almost necessarily antagonistic to each other. Our boundless public domain invites industry by the facility of acquisition, and rewards it by such advantages as were never before offered to those who seek a moderate competence with personal independence.

But there are still graver considerations which are connected with this subject, and which force themselves upon our attention with peculiar interest at the present time. I need not tell an American audience that the signs of the political atmosphere are portentous and alarming. The cloud, that was no bigger than a man's hand, like that seen by the Prophet from Mount Carmel, has overspread the heavens, and threatens to burst in ruin upon our country. I am dealing with great national facts, and not with the questions of party—with the dangers that encompass us, and not with the causes that produced them. That the attachment to the Union is weakened, almost broken indeed, in large portions of the Confederation, he who runs may read in all that passes around him. Our day of trial is come, as theirs came to our fathers. If we meet it as they met it, in a spirit of patriotism and conciliation; we may strengthen their work by our own, and transmit our great and goodly heritage, our hope and the world's example, to those who are to follow us, the most magnificent legacy after the religion of God, that was ever bequeathed by one generation to its successors, since human governments were instituted. And upon the intelligence and virtue of the country, and especially of the farming interest, which constitutes so large a portion of it, must we rely for that active and ardent patriotism, which is the more devoted the more perilous is the crisis; which looks to the claims of all while maintaining the rights of each, steadily seeking in the Constitution the true principles of action and forbearance, and tempering its judgment with that "brotherly affection" to use the language of Washington, without which it were idle to expect, to hope, indeed, that the bonds that unite us can retain us together. Withdraw this power of attraction, and our system will soon be broken up, leaving its members to wander in uncertain space, or to form new combinations with their own elements of destruction, and with a similar fate before them. God grant that we may be wise in time, and that for ages hereafter, the American farmers, from the St. Croix to the Pacific, wherever situated, or whatever the products of their agriculture, may come together,

assembling, not upon battle grounds, but upon fields of husbandry, not to contend in blood for political supremacy, aided by improvements in the ART of death, but to compete together in spirit of emulation and not of enmity, for the advancement of the ART of life, the production of human subsistence, that in the words of the Patriarch of Israel, "we may live and not die."

PORK—BACON—HAM.

No animal yields so little mere offal as the pig, every part being made useful—feet, head, and shanks are all admired when pickled or made into "brawn." The poor man makes a comfortable meal of the pluck and part of the caul; the large intestines and stomach are sold under the name of "chitterlings;" the small intestines envelop sausage meat; sausage meat itself is formed from the scraps; black puddings are made from its blood, the bristles are appropriated by the brushmaker, every part is turned to account, so much so, that we cannot be surprised at the hog being so long continued a favorite at the farm house, particularly when we take into consideration the valuable property which his flesh possesses of being easily preserved for future occasions by means of salt.

In noticing the curing of bacon and pork, it is barely requisite to mention the curing of pork for the navy, the cutting up of which requires some practice, as every piece ought to weigh as nearly as possible alike, with an equal amount of bone. When cut up, it is thrown into large tubs containing a preparation of strong pickle formed of salt and saltpetre; when cured, it is put into barrels, the bottom of the cask being covered with a layer of bay salt, then a layer of pork, another layer of salt, and so on alternately until the cask is nearly filled; then a layer of salt is laid on top, and the cask headed up. The fresh pickle out of which the pork has been taken is then saturated with salt and poured through a hole left in the head for the purpose; when the cask is full the hole is plugged up and the cask sent to market. Porkers cured for the home market, and usually known in the metropolis as barrelled "Berwick pork," is cured by being cut into peices and salted in tubs, having no other brine, than that formed by itself in pickling. It is, when cured, taken out, packed in barrels along with fresh, strong pickle, and sent to market. A large quan-

tity of the Berwick pork, sold in London, comes from the west of Ireland. For home use, pickled pork may be made, using a little sugar in addition to the salt, by which means less of the latter may be used. By this mode, the pork is not quite so salt; as however, pickled pork is always preferred when made from pigs of moderate size, it is better to make the same as wanted, and not to keep it more than a month or six weeks; for prepare it in whatever way that can be devised, the flesh of young pigs will contract very much in the pot, if long cured, and in cooking, care should be taken not to over boil it, otherwise it will also contract.

All sorts of recipes have been given for curing ham and bacon, some representing the mode of one country, some of another, overlooking the fact that almost every country or county adopts varied means, and do not confine themselves to any particular rule. If half a dozen farm houses in Westmoreland and Cumberland, who practice curing bacon on an extensive scale, be asked for their recipes, three or four different ones will be given; in fact, the mode of curing is most empirical, every curer adopting a formula of his own. If any book treating on swine and curing bacon is taken up, it will be invariably found that sugar or molasses enter into the reputed recipes of most of the celebrated districts. Now, the writer knows from actual experience, and from having been witness to the curing of bacon and hams in the west of England, Cumberland, Westmoreland and Ireland, in the latter country where both York hams and west-of-England bacon is made up for the English market, and sold as such in England (one curer of York hams in Ireland sending almost the whole of his make to Hull and York,) that no sugar or molasses enters into the process of curing where the business is carried on to any extent. In Cumberland and Westmoreland, it is customary, when the hams are sufficiently cured, to mix up a species of pomatum formed of lard or fat, black pepper or sugar, and rub this over the bottom of the ham, but more particularly around, and over the end of the bone, filling the crevices well up with this substance; the principal effect of which is that it excludes the air, and consequently diminishes the chance of decay from ordinary causes, and the pepper decidedly prevents

Nov., 1851.]

THE VALLEY FARMER.

the fly converting it into a nest. With careful persons the ribs, bony parts, and joints in bacon are treated in a similar manner; the sugar and pepper have also the effect of giving the ham and lean parts of the bacon so treated, an additional fine flavor. The only place where I have known sugar much used in curing bacon is in some parts of Essex, where I have tasted it quite sweet with sugar. The fine flavor of the Westmoreland and Cumberland hams is principally due to the fact of their being fed on oat meal and buttermilk, and not to the mode of curing.

Another important fact is, that, whilst firm, well-fed hogs absorb less salt than ill-fed animals; in fact, though as much salt is used with the former when perfectly cured will be by no means so salt as the latter, although like means are used in each case, and continued in pickle or salt a like length of time, and the reason is obvious from natural causes. There is not much fear of well-fed, firm hogs becoming over salt in curing, unless great excess of salt and saltpetre are used for the purpose, or kept preposterously long in salt. In whatever form the flesh of hogs is intended to be disposed of, it is requisite that food should be withheld from them for at least 16 or 24 hours prior to their being slaughtered, and if they have previously been driven, they ought to have a rest of three or four days before being killed; for if in a nervously excited state, or incipient fever, arising from over driving or hot weather, the meat will only with difficulty 'take the salt.'

The state of the weather is a matter of great importance in curing bacon, warm and very moist weather being extremely prejudicial. Hot weather is not so injurious as is generally imagined, provided the atmosphere is dry. As, however, the atmosphere is generally charged with moisture in proportion to its high temperature, the hurtful effect which frequently follows curing in the summer season is attributed to heat instead of the true cause, namely excess of moisture in the atmosphere, the baneful effect of which is heightened by its higher temperature, to which may be added the feverish condition of the animal at such seasons; if within the curer's power his operations ought to be regulated rather by the hygrometer than by the thermometer.

This is, however, difficult to accomplish—hogs should fast sixteen hours before being slaughtered, after which, they require to be hung up to cool 16 or 20 more, at which 36 hours must elapse before the sides will fit for the curer. In our variable climate many changes will occur within that period. Severe frosty weather is not otherwise unfavorable to curing bacon than that which arises from the circumstance that it will not 'take the salt' at all but remains quite fresh until a thaw comes on, when it takes the salt rapidly.—Journal Royal Agricultural Society.

BIRDS INJURIOUS TO FRUIT TREES.

Some years ago, after severe snow storm in April, I observed that the surface of the snow under my peach trees was literally covered with blossom buds, and on minutely examining the branches, saw with regret that all hopes of a good crop, for that year at least, had entirely vanished. At first, I thought this might be the effects of the late storm, but on a closer examination, saw that the buds had been torn with violence from the branch, and that it had been the work of some living animal. The next morning, determined to solve the mystery, I took a gun watched the trees, and soon discovered flocks of small birds, apparently sparrows, busily engaged eating the blossom buds, and scattering the refuse on the snow-covered ground. Having shot several of the petty thieves, I dissected a couple, and found them full of my missing blossoms, thus leaving no doubt on my mind as to the cause of the bare appearance of the trees. One branch, alone, which I showed to a friend, having ten buds eaten off, and only two remaining perfect. This spring, again observing the buds eaten in the same manner, led me to think that many persons, who complain of the peach blossoms having been killed by cold weather, may, with much more justice, attribute their loss to the real cause, that is, the bud eating propensity of these birds. A neighbor complained to me to-day, that several buds from his newly budded trees had been, as he thought rubbed off; but, from his description of the state the buds were in, I have every reason to believe that this is likewise the work of birds. Not having seen any notice in your journal, upon this sub-

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and very moist weather being extremely prejudicial. Hot weather is not so injurious as is generally imagined, provided the atmosphere is dry. As, however, the atmosphere is generally charged with moisture in proportion to its high temperature, the hurtful effect which frequently follows curing in the summer season is attributed to heat instead of the true cause, namely excess of moisture in the atmosphere, the baneful effect of which is heightened by its higher temperature, to which may be added the feverish condition of the animal at such seasons; if within the curer's power his operations ought to be regulated rather by the hygrometer than by the thermometer.

to a friend, having ten buds eaten off. and only two remaining perfect. This spring, again observing the buds eaten in the same manner, led me to think that many persons, who complain of the peach blossoms having been killed by cold weather, may, with much more justice, attribute their loss to the real cause, that is, the bud eating propensity of these birds. A neighbor complained to me to-day, that several buds from his newly budded trees had been, as he thought rubbed off; but, from his description of the state the buds were in, I have every reason to believe that this is likewise the work of birds. Not having seen any notice in your journal, upon this sub-

assembling, not upon battle grounds, but upon fields of husbandry, not to contend in blood for political supremacy, aided by improvements in the art of death, but to compete together in spirit of emulation and not of enmity, for the advancement of the art of life, the production of human subsistence, that in the words of the Patriarch of Israel, "we may live and not die."

PORK—BACON—HAM.

No animal yields so little mere offal as the pig, every part being made useful—feet, head, and shanks are all admired when pickled or made into "brawn." The poor man makes a comfortable meal of the pluck and part of the caul; the large intestines and stomach are sold under the name of "chitterlings;" the small intestines envelop sausage meat; sausage meat itself is formed from the scraps; black puddings are made from its blood, the bristles are appropriated by the brushmaker, every part is turned to account, so much so, that we cannot be surprised at the hog being so long continued a favorite at the farm house, particularly when we take into consideration the valuable property which his flesh possesses of being easily preserved for future occasions by means of salt.

In noticing the curing of bacon and pork, it is barely requisite to mention the curing of pork for the navy, the cutting up of which requires some practice, as every piece ought to weigh as nearly as possible alike, with an equal amount of bone. When cut up, it is thrown into large tubs containing a preparation of strong pickle formed of salt and saltpetre; when cured, it is put into barrels, the bottom of the cask being covered with a layer of bay salt, then a layer of pork, another layer of salt, and so on alternately until the cask is nearly filled; then a layer of salt is laid on top, and the cask headed up. The fresh pickle out of which the pork has been taken is then saturated with salt and poured through a hole left in the head for the purpose; when the cask is full the hole is plugged up and the cask sent to market. Porkers cured for the home market, and usually known in the metropolis as barrelled "Berwick pork," is cured by being cut into pieces and salted in tubs, having no other brine, than that formed by itself in pickling. It is, when cured, taken out, packed in barrels along with fresh, strong pickle, and sent to market. A large quan-

tity of the Berwick pork, sold in London, comes from the west of Ireland. For home use, pickled pork may be made, using a little sugar in addition to the salt, by which means less of the latter may be used. By this mode, the pork is not quite so salt; as however, pickled pork is always preferred when made from pigs of moderate size, it is better to make the same as wanted, and not to keep it more than a month or six weeks; for prepare it in whatever way that can be devised, the flesh of young pigs will contract very much in the pot, if long cured, and in cooking, care should be taken not to over boil it, otherwise it will also contract.

All sorts of recipes have been given for curing ham and bacon, some representing the mode of one country, some of another, overlooking the fact that almost every country or county adopts varied means, and do not confine themselves to any particular rule. If half a dozen farm houses in Westmoreland and Cumberland, who practice curing bacon on an extensive scale, be asked for their recipes, three or four different ones will be given; in fact, the mode of curing is most empirical, every curer adopting a formula of his own. If any book treating on swine and curing bacon is taken up, it will be invariably found that sugar or molasses enter into the reputed recipes of most of the celebrated districts. Now, the writer knows from actual experience, and from having been witness to the curing of bacon and hams in the west of England, Cumberland, Westmoreland and Ireland, in the latter country where both York hams and west-of-England bacon is made up for the English market, and sold as such in England (one curer of York hams in Ireland sending almost the whole of his make to Hull and York,) that no sugar or molasses enters into the process of curing where the business is carried on to any extent. In Cumberland and Westmoreland, it is customary, when the hams are sufficiently cured, to mix up a species of pomatum formed of lard or fat, black pepper or sugar, and rub this over the bottom of the ham, but more particularly around, and over the end of the bone, filling the crevices well up with this substance; the principal effect of which is that it excludes the air, and consequently diminishes the chance of decay from ordinary causes, and the pepper decidedly prevents

the fly converting it into a nest. With careful persons the ribs, bony parts, and joints in bacon are treated in a similar manner; the sugar and pepper have also the effect of giving the ham and lean parts of the bacon so treated, an additional fine flavor. The only place where I have known sugar much used in curing bacon is in some parts of Essex, where I have tasted it quite sweet with sugar. The fine flavor of the Westmoreland and Cumberland hams is principally due to the fact of their being fed on oat meal and buttermilk, and not to the mode of curing.

Another important fact is, that, whilst firm, well-fed hogs absorb less salt than ill-fed animals; in fact, though as much salt is used with the former when perfectly cured will be by no means so salt as the latter, although like means are used in each case, and continued in pickle or salt a like length of time, and the reason is obvious from natural causes. There is not much fear of well-fed, firm hogs becoming oversalt in curing, unless great excess of salt and saltpetre are used for the purpose, or kept preposterously long in salt. In whatever form the flesh of hogs is intended to be disposed of, it is requisite that food should be withheld from them for at least 16 or 24 hours prior to their being slaughtered; and if they have previously been driven, they ought to have a rest of three or four days before being killed; for if in a nervously excited state, or incipient fever, arising from over driving or hot weather, the meat will only with difficulty 'take the salt.'

The state of the weather is a matter of great importance in curing bacon, warm and very moist weather being extremely prejudicial. Hot weather is not so injurious as is generally imagined, provided the atmosphere is dry. As, however, the atmosphere is generally charged with moisture in proportion to its high temperature, the hurtful effect which frequently follows curing in the summer season is attributed to heat instead of the true cause, namely excess of moisture in the atmosphere, the baneful effect of which is heightened by its higher temperature, to which may be added the feverish condition of the animal at such seasons; if within the curer's power his operations ought to be regulated rather by the hygrometer than by the thermometer.

This is, however, difficult to accomplish. Hogs should fast sixteen hours before being slaughtered, after which, they require to be hung up to cool 16 or 20 more, at least 36 hours must elapse before the sides are fit for the curer. In our variable climate many changes will occur within that period. Severe frosty weather is not otherwise unfavorable to curing bacon than that which arises from the circumstance that it will not 'take the salt' at all but remains quite fresh until a thaw comes on, when it takes the salt rapidly.—Journal Royal Agricultural Society.

BIRDS INJURIOUS TO FRUIT TREES.

Some years ago, after severe snow storm in April, I observed that the surface of the snow under my peach trees was literally covered with blossom buds, and on minutely examining the branches, saw with regret that all hopes of a good crop, for that year at least, had entirely vanished. At first, I thought this might be the effects of the late storm, but on a closer examination, saw that the buds had been torn with violence from the branch, and that it had been the work of some living animal. The next morning, determined to solve the mystery, I took a gun watched the trees, and soon discovered flocks of small birds, apparently sparrows, busily engaged eating the blossom buds, and scattering the refuse on the snow-covered ground. Having shot several of the petty thieves, I dissected a couple, and found them full of my missing blossoms, thus leaving no doubt on my mind as to the cause of the bare appearance of the trees. One branch, alone, which I showed to a friend, having ten buds eaten off, and only two remaining perfect. This spring, again observing the buds eaten in the same manner, led me to think that many persons, who complain of the peach blossoms having been killed by cold weather, may, with much more justice, attribute their loss to the real cause, that is, the bud eating propensity of these birds. A neighbor complained to me to-day, that several buds from his newly budded trees had been, as he thought rubbed off; but, from his description of the state the buds were in, I have every reason to believe that this is likewise the work of birds. Not having seen any notice in your journal, upon this sub-

I thought I would take the liberty to make this fact known, as perhaps some species of bud eating birds may cause more devastation in peach orchards than we imagine. The bird to which I allude is the Purple Finch or American Linnet—"Fringilla purpurea." Nuttall says, that "when reduced to necessity they are observed to eat the buds of the beech, and those of fruit trees, probably for the sake of the stamens contained in them, of which they are greedy, when displayed in the opening blossom." However, in summer they partly repay us, as then "their food consists principally of insects," although at the same time "they eat small juicy berries as those of the honeysuckle, and others." The Purple Finch is about six inches in length, and has a sweet and varied song. The adult male, Nuttall says, is of a crimson color, (but my specimens are of a dusky crimson shade, with the back dusky brown, probably young birds,) the belly is partly white. The females and young are of a pale brown, and dusky, beneath yellowish white, spotted with dusky brown; the legs are of a brownish flesh color and the bill dark brown color. As I am much opposed to shooting any small insectivorous birds, deriving as we do, from them, more benefits than most of us are aware of, as they destroy daily innumerable eggs, and insects, and larvae, which if suffered to multiply would totally destroy not only our fruit, but the very orchards themselves,—could not some plan be devised to frighten away these little thieves? as at one meal they destroy hundreds of peaches, for the sake of, as Nuttall states merely the stamens. I would not thus intrude upon your time and patience, had I not suffered pretty severely from the depredations of these birds, and thought it might be well to warn others, who have been and now are, in a similar situation.

We have noticed this species of Linnet frequently in our grounds, but never having suffered much by the destruction of any quantity of peach buds, we have not noticed their peculiar propensity to eat the flowers of this fruit. We gladly, however, insert the above, and would be glad to have cultivators, who may suffer in the loss of their peach buds, notice the habits of this bird, which may be readily known by the description. In some localities they may be

much more injurious than others.—[Hovey's Horticultural Magazine.]

FLAX COTTON.

We have been furnished by Isaac W. Taylor, Esq., with a specimen of the "Flax Cotton," in its raw state, as manufactured under the process of the Chevalier Clausen; and also several specimens of cloth and linen made from this material. The cotton resembles greatly the staple grown in the Southern States, and on a superficial examination, can scarcely be distinguished from it. The fibre is fine, glossy and silky, and can evidently be manufactured into cloth by the same process, the same machinery, and with as much facility as ordinary cotton. The fact that no change of machinery will be needed, is a most important consideration. If it can be carded, spun and woven, in the same manner as ordinary cotton, then the questions to be next considered, are, whether it can be produced as cheaply, and whether the fabrics made from it will be as durable as those from native cotton. Of the last proposition we have no doubt. The cloth made from flax, we have every reason to believe, would be superior in any made from cotton. The fibre is stronger, and in all respects more durable; whilst for many purposes, the linen would be preferable to cotton on the score of comfort and health.

In reference to the relative cost of production, we have no sufficient data to enable us to form an opinion. But it should be borne in mind that in the cultivation of flax there are other sources of profit besides the fibre. The seed is extensively used for oil, and large quantities of flax are grown for the seed alone. Nor should it be forgotten that flax will grow in any temperate climate, whilst cotton can only be produced in low latitudes. A large portion of the globe will therefore reduce the price of the flax cotton down to the point at which it can be produced with profit, whilst the growth of cotton must forever remain a monopoly to southern latitudes, and the price will necessarily continue to some extent arbitrary. But we are not sufficiently acquainted with the progress of preparing the flax cotton for manufacture, to decide upon its relative cost as compared with the natural cotton. But the subject is replete

with interest, and we hope to see the utility of the Chevalier Clansen's discovery tested in a manner that will leave no room for doubt. Mr. Isaac W. Taylor can refer those who feel an interest in the subject to the proper source for information.—[St. Louis Intelligencer.

THE GOOD FARMER.

And who is the good farmer? is a question that may well be asked.

From the fact, that many have erroneous ideas about the proper management of the farm, first we may ask, is it the one that can boast of tilling the greater number of acres? Is it the one that can tell you of the large surface he has gone over, yet cannot inform you of the mode or management of preparation, or the means he has employed in fertilizing the soil,—in which lies the secret of neat and profitable farming? Is it the one that plants and sows more than he can attend to in a proper manner, and consequently meets a loss of time, seed, and land? Or is it the one that keeps double the number of stock his pasture will afford grazing for, and therefore cannot keep them in a good condition, so perchance they find their way into his neighbor's field to appease their hunger? We contend that such examples cannot come within the range of good farming. And they are not uncommon in their occurrence,—we might cite you to many such of our acquaintance.

But the good farmer never makes his calculations beyond his means, and his power to fulfil. He never tills more land than he can till properly, and perform the amount of labor necessary to secure to himself an abundant harvest. He never allows one crop to succeed another, unless the land is manured or otherwise enriched, so as to preserve its fertility, and enable him to reap bountifully. And his number of stock is proportioned to the number of acres he has under improvement, and no more than he can keep in a thriving condition.

And allow us here to remark the good farmer enjoys that happiness and plenty which flow from a well regulated system of cultivating the soil—he is free from those vexations and cares which continually harass him who has no system or order in his farm affairs.—[Moore's Rural New Yorker.

THE ORCHARD.

RANDOM THOUGHTS AND OBSERVATIONS

ON POMOLOGY,

AND KINDRED SUBJECTS, IN ILLINOIS AND THE WEST.

BY JOHN A. KENNICOTT.

(CONCLUDED.)

Our law-makers admit that agriculturists are the "majority," and this same "majority" is the only argument that ever brings conviction to the mind of a mere politician.

My friends, the uneducated farmer is not yet ready to advance this argument. And it is, I well believe, expected of us, that we shall assume the responsibility of demanding specific aid to the agricultural interest, as well as specific education for the sons of farmers.

There is no arrogance in this. It is known that the Horticulturist is the true friend of labor, and the enemy of all humbug and pretensions. We are not politicians, few of us ever meddle in the affairs of the nation; but we have a duty to perform, and an object in view, which may cause us to step from out the shadow of our "own vine and fig tree," to see that our brother has justice—that the husbandman who feeds and clothes, and supports the nation, shall be of "some account" in the "councils of the nation."

Should it ever become necessary, it were easy for us to unite the sons of labor for "party purposes" but politicians are shrewd observers, and will not have the folly to deny what we may justly demand, for they know, as we do, our dormant power—that the mechanic and manufacturer are of us, and with us—that the merchant is our factor and our friend; and more than this, they know, what all history hath shown, that from among us the breed of great men has always sprung. As the priests of old were from the tribe of Levi, so hath God decreed that God-like souls should come from among the sons of noble labor.

All great political movements require concert and combined action, to secure success. So far as the farmer is concerned, we must effect a revolution in political sentiments, if not in political combinations.

It has been said that all great revolutions require "a man of destiny," to lead them to a successful result. Not so; at least, not here, nor in this 19th century. PUBLIC OPINION creates revolutions. Great men, like Cromwell and Bonaparte, guide the storm they do not raise. But we

shall have no lack of leaders, should we find it necessary to give a right direction and efficient action to the opinion fast gaining ground, that more patriotism, and less pretension—more action, and less talk, are desiderata in our legislative halls.

Those among us who are inclined to take a narrow and restricted view of the objects of this Congress, will doubtless deem this long preamble a mass of irrelevant, if not uninteresting matter. But, my friends, there can nothing be done to aid the many, without effort in the few. We represent a strictly agricultural interest. An individual, however enthusiastic in a good cause, can never move politicians; but as a respectable and intelligent body, we may, and we are in duty bound to "set this ball in motion," which the AGRICULTURAL PRESS will then "roll on" until its weight and impetus shall become irresistible, and the farmer be made "of some account in the State." As individuals, it is true, that we have little to hope from an Agricultural Department connected with the machinery of our government. If properly and faithfully conducted, it might even tend to diminish the profits of our business. But God, and our profession, have made us philanthopists. Our object is not so much individual interest, as the "greatest good to greatest numbers."

Though much enlarging our sphere of usefulness as a self organized and republican body, we are not transcending our duties, when we adopt as a subject worthy of our united action, this measure recommended by Washington and Taylor, and in which "three-fourths of the people," and the class to which we belong, are deeply interested.

We can see a thousand ways in which an Agricultural Bureau could be made immediately and largely serviceable, to this great and indispensable interest; and if we select the poetry of agriculture as our branch of the profession, we have the greater reason, and the more precedent, to constitute us its legitimate champions.

Of course the benefits to be expected from an Agricultural office at Washington, will be somewhat in proportion to the amount of means at its disposal, and the fitness and energy of those who may chance to be placed in charge thereof. These matters may not be deemed unworthy of your consideration, for if Agricultural and Horticultural associations neglect them, this office of ours may chance to become a mere political machine, and help to keep the farmer in his present posi-

tion, by flattering him that he has the substance, when he may have not even the shadow of a useful national agricultural organization. A "Bureau," governed by party, or administered by politicians, might prove an unmitigated evil, retard scientific progress, and divide, instead of uniting agriculturists—and God knows we are sufficiently divided now—into a small class that read books and rural journals, to teach them how to work and a much larger one, that work as their fathers did; and as their lack of science requires much labor for the same results, they seldom have much time, and in reality no inclination to read aught save the partizan papers, put in their hands by their party leaders; and except modern novels, this is often the least profitable, and sometimes the most debasing of all printed matter.

That same sort of an Agricultural office will be soon created, no one who reads the signs of the times, can doubt. It is true, that the report of the Senate committee is not *very* encouraging—proposing the enormous sum of sixteen thousand dollars, for the benefit of sixteen million of Agriculturists! And "the immediate representatives of the people" have (the majority of the committee,) refused to report at all—and yet, a minority has modestly suggested that we might be bought a thousand dollars cheaper than the Senatorial offer!

This only proves what I before advanced, that we think meanly of ourselves, and our pursuits; and instead of *demanding* as farmers by profession, and "three-fourths of the people" at the polls, we permit ourselves to be played with, by political gamblers, who move us as they would the "pawns" on a chess board.

In the name of common sense and human nature, how long shall we put up with such indignities? There are good men enough in Congress, to look to our interests, if we seriously stir in the matter. Those who know our wants, and respect our worth, will see to it, if we seriously demand this Agricultural Bureau, and the talking politician will be very shy of risking his popularity and his *place* by opposing us.

Does any one pretend that the money this department will cost, is an object worth talking about? If so; refer him to the reports and "estimates" of the engineer departments for 1849-50, and the appropriation bills of every year. I open at random, a volume sent me by "our member," page 221, I find that for the fiscal year \$35,000 is asked for one fort, and 3 pages on, \$75,000 for another—and this, too, in an age, when ev

military men hold, that the breasts of Americans are our best fortifications, and that there is no fort in existence, that good soldiers cannot reduce.

But I have said enough on this subject. Policy, under the circumstances, should have kept me clear of this theme. But I am no politician as you all know; and as a liberally constituted Agricultural Department, connected with the machinery of our government, might, in my opinion, be made all efficient, in organizing and educating farmers, I am bound to advocate it, regardless of any personal consequences, which may attach to my interference.

But I have little hope from such an office, unless by universal consent it be turned over to us, when created, *irrespective of party and independent of partizan obligations*. One principle in our government, like that saving one in our constitution—our highest judiciary—that may preserve its usefulness, free of party trammels, and partizan warfare.

In no other way can such a department be made generally popular, and permanently useful—and without this feature, it would only tend to divide and distract the efforts of individuals, and the great and beneficent associations that are now raising the tiller of the soil from a mere mechanic, to a reading, thinking and scientific agriculturist.

If I have made myself understood, you will have gathered from my many words one thought worth pondering. It is this: That we, though calling ourselves Pomologists, are, in reality, scions of the great family of husbandman; and as our particular branch of tillage has opened to us more leaves of the book of nature, than the farmer can read—and that our tastes, or our necessities, have made us reasoning and observing men; and moreover, our good fortune has led us to unite in Congress, for the general good of Pomologists, we are bound by every generous tie, to aid the less fortunate of our class, in all things connected with the cultivation of the earth.

And the first and last thing wanted by the farmer, is *education—knowledge*. In this we can assist him—and what we can do we *should do* in this connection.

Agricultural and horticultural societies, have done much towards waking up and encouraging all who labor for bread—the mechanic, as well as the farmer and pomologist. At the shows of these societies, our brethren see what others have done, and what science may do. And the

people of the “universal Yankee nation,” are very apt to believe, that “what man has done, man can do again.” Thousands are annually startled from their old routine practice, by what they see at these exhibitions, and try to imitate or excel the products of the farm, or the workshop, which have thus excited their professional emulation.

Let us therefore, help to establish county and State societies throughout our land, and let us add one feature to them, which most of those in existence now lack—not exactly lectures, but observations on every new or extraordinary subject. This may be done, by a system of familiar questions put to every exhibitor, by the proper officers of the society, and publicly answered.

I have read reports of such public conversations in the proceedings of the AMERICAN INSTITUTE, New York city, and some other societies. This mode of conveying information, though not always as clear and reliable as written statements possesses many advantages. Let it be generally adopted, and much good will result therefrom, and the persons who cannot or will not read, may possess themselves of a few facts, on which to base their own experiments. I have heard of the adoption of this plan in small neighborhoods, without shows, and with the happiest and most encouraging results.

But after all our principal engine, is the *agricultural press*. The press may have been brought into existence by the societies, though that admits of doubt. The press is, however, the organ, and the very soul of the associations. Man is a vain animal, and loves to see himself “in print,” and he often works hard and effects much good, with that powerful though unacknowledged desire.

The agricultural press must be sustained. Public opinion is the true sovereign of the Anglo Saxon; and he will give even money,—which is too often his God,—to propitiate it. Say what we may about the press being but the mirror of public opinion, it certainly creates as well as reflects that mighty power.

Let us sustain then our agricultural journals. If we cannot give money, as politicians do to theirs, we can give a little time. Many of us have influence and powers of persuasion. Let us exert these with our neighbors, and procure legitimate subscriptions—knowing as we do, that for every dollar we induce our bretheren to disburse they will receive the value of ten, in useful knowledge.

The agricultural press is now the most efficient and legitimate advocate of common school and specific agricultural education; and this is a subject of more general and vital importance, than all the agricultural bureaus and societies in the world.

The farmer's son must be educated for his profession—the mechanic for his calling, and the voter for the perpetuation and extension of our free institutions, and “the manifest destiny” of the Anglo Saxon race.

And better than our sons, should we educate our DAUGHTERS. If “the boy is father to the man,” the MOTHER not only bends the twig, but her influence for good or evil, is often on the joint product of both parents, or the future career of the son, as palpable as the successful graft of the pippin on the crab, or a melting pear on a native thorn.

Do not for a moment, suppose that I believe the minds of men like this paper, on which I can write what thoughts I please. Men are as different in mental organization as in feature. And yet, even idiots are susceptible of some education; and pippins will sometimes grow when inoculated on crabs, and pears on thorns, though not on hemlocks or black jacks.

Scientific education can do much toward redeeming a bare or sterile mind; and it can do every thing with that on which God smiled at its inception and development. But without, education, this child of the deity will be but as the statue in the block of marble, or this paper before it was blotted by my uneducated speculations, and chance thoughts, which the very system I advocate, might have converted into gems of beauty and usefulness.

Agricultural education may be thought, (as some who live by agriculturists have said,) “one of the humbugs of the age.” Still it is a principle which I hope to see tested before I die. I would ask no larger hold on fame, than I could rest on the broad results of such a system as I advocate. But, alas, my power in this, as in most things, are far below my enthusiasm and my appreciation of the great thoughts of other men. But, thank God, great men and men in power see this matter in its true light, and have dared to countenance and sustain it, even against self-nominated legislators, who neglect our interests, and self-constituted manufacturers of public opinion, who underrate or slight them.

Massachusetts has already commenced her system of agricultural education. And who has

been and is among the leaders of this first successful movement? Our own President, Marshal P. Wilder. Here we have a “precedent” if you require it, for what I have taken the liberty to urge upon scientific cultivators, though associated here as mere pomologists.

New York, ere five years, will have more than one agricultural college; and soon she will have one in every grand division of the State. The system is only delayed, not abandoned. And what member of this Congress, is there from the the Empire State, who does not feel that he has done something towards creating “the public sentiment,” that will cause this glorious consummation?

In little Rhode Island, an old-fashioned “institution of learning”—one of the breed of colleges created by the monks, in the old world, to perpetuate their power, by hoarding knowledge within its walls, and spreading a pall of darkness and ignorance over every mind not “vowed” to them—BROWN UNIVERSITY—has declared that the son of the farmer must be educated, and the mechanic and civil engineer ought not to be compelled to load their brains with the dead languages and old monkish lumber, in order to pick up a few crumbs of the sciences that occasionally fall from the desks of these hitherto exclusive dispensatories of “a liberal education.”

Francis Wayland must have his full share of the credit of this startling movement—though of course the men who lend the “sinews of war,” are entitled to the lasting gratitude of the sons of labor, who are to reap the benefit of this unhopd for liberality.

One of the arguments used by President Wayland, to bring about this innovation, is truly characteristic, and shows the tact of the worthy President, and his knowledge of the calculating Yankee. He not only convinces the board that the system is unjust and devoid of practical utility, as well as opposed to the ideas of the age, but that it will *not pay*; that the concern must fail, if conducted in the middle of the 19th century; if not with the same objects, at least in the same manner, and with less actual accruing usefulness, than in the dark ages of monkish rule and christian barbarism.

That argument of “dollars and cents” was a good one, and doubtless had its weight, and why should we not use it, and show that a specific education for the farmers, would add millions to the wealth of the nation, for every thousand expen

ded, while it gave a greater share to the producer?

I cannot go the full length of the figures of my old friend Dr. Lee, in his Patent Report, and yet there is much truth in his statements, and entire truthfulness in most of his deductions, however startling his arguments may appear, to one not used to this kind of demonstration.

"Westward the star of empire takes its way,"

and "the great west" has the greatest stake in agricultural and horticultural improvements; and, of course, in the first means to be used for the desired end—EDUCATION. 'Tis said that we do nothing by halves in the west. Let us neither overdo, nor half do this matter. Let us strike at once, and make the west the school as well as the granary of the Old World.

Let us preserve the fertility of the soil, and increase the quantity of its products, instead of seeking a further west, where our little agricultural knowledge may give its usual returns to our hard labor, and which will, in the end, compel our children to yet another remove when our improvident cultivation shall have left as no rich and virgin west within our present limits.

Then conquest must come to the aid of emigration before the sure influence of our free institutions, and the irresistible force of our national character, shall have had time and opportunity to prepare the southern portion of this continent for our certain advent.

If we do nothing now, towards preserving the fertility of the territory of our Union, in process of cultivation, or rapid settlement, or next "west" must be a southern one; and we must conquer or colonize to that end; and crowd the Spanish race, from the richest portions of this country, as we have nearly done the Aborigines of the north.

This movement is inevitable, in the course of human events, and in its accomplishment, we can have few scruples, for they are but forcible and despicable intruders, or worthless crosses of other races in the land from which we must be clearing, expel or extinguish them.

But, what all reflecting patriots depreciate in this immediate alternative, are the natural consequences of a warmer climate, of almost spontaneous production, and its peculiar concomitants in this case, on the character of our people, should they mingle too soon with this race, so every way inferior, and in whom virtue and knowledge, energy and enterprise, have long been but a name, or a best but a feeble and distorted reflection of their glorious past.

MISCELLANEOUS.

A BUNKER HILL HERO.

We copy the following interesting correspondence from the Boston Journal, which says that the narrative is related in the words of the veteran Major Burns himself. We are proud to learn that New Hampshire possesses such a citizen, and hope that he may yet live long and happily:

MR. EDITOR:—Having a short time since read in your Journal, that the last of the heroes of Bunker Hill was dead, and remembering that four or five years since I called on Major Burns of Whitefield, New Hampshire, I last week when journeying through that town, turned aside to visit the Nestor of Coos county, (if living) at his residence. I found him at home and but little altered, either in looks or faculties during the above mentioned time. In our conversation I adverted to the revolution, when the old hero quickly arose and by words and gestures began again to fight his battles, whilst I busied myself taking notes of the incidents of his life, as he related them.

He said, "I was born in New Boston, N. H., and at twenty years of age went to live for a time at Lexington, Mass. I was there when the British marched from Boston, and without thinking or caring for consequences, I joined the company of militia. Was in it when the British fired upon us, and was with those who followed and poured destruction into their ranks, during their retreat back to their quarters.

As soon as the troops began to assemble which were to form the besieging army of Boston, I joined with those from New Hampshire, and with them I remained until the British were shut up in that place. Early on the morning of June 17th I heard the roar of cannon and with others marched to reinforce the Americans on the Hill. My Col. was John Stark, and Gardiner Hutchins my Captain."

He related the incidents of the battle nearly as we have them in history. "At about eleven o'clock, being very thirsty, with others I started to procure water from a well near the foot of the hill. We had drawn the water, and when about to wet our parched lips, some one gave the alarm that a ship had swung round in order to bring her broadside to bear upon us. As quick as thought we started for our posts, and a moment after the well curb was stove to atoms by a cannon ball. After my powder was expended, I ran to Deacon McMellan of New Boston, N. H., to procure some. I saw him loading his gun, and at the instant I was making my request, and he had driven down the ball in his gun, a ball struck him in his right elbow, from which the blood spouted. I cried out, Deacon, they have shot you, when he said, 'no they ha'nt, my boy,' and in an instant his arm fell useless by his side. The wound bled profusely, and he requested me to tie a cord above his elbow, which I did, so tight that it measurably stopped the blood. He then bade me take what powder and ball he had, and his canteen, in which was a little rum, and fight them to the

last, and as he could not be of any further use there, he would go and have his arm taken off. The ball entered his elbow, and was extracted near the wrist; the arm was saved, but was ever after stiff. He was some twenty years older than me, and died about twenty years ago.

When driven from our works and on the retreat, I found myself as faint and weary as a poor boy need be, having taken no food all day, and my only drink what little rum I found in my friend the Deacon's canteen. I afterwards learned to take a bite in my haversack, and drink in my canteen. When on our retreat, Col. Stark had a spade in his hand, and, when asked why he carried it, he said he worked with it in the morning on the intrenchments, had just been using it in fighting, and was now carrying it to a place of safety where the British could not have it.

I afterwards joined the troops under General Arnold, ascended the Kennebec, and endured the sufferings and privations of that long march through the wilderness to Quebec; I was taken sick, invalided, and sent home, where I arrived after much suffering. As soon as my health was restored I again joined the army, and after many transfers found myself at Newport, R. I., under General Sullivan. I was in a battle there, after which we retreated, giving the British the slip when they thought they had fairly caught us.

At the close of the war I received my discharge came home, and was married, and moved to Fisherville, and, whilst there, commanded a company of militia six years, and served as major of the regiment there. In 1803 I again removed to Whitefield, my present place of residence.

In the last war with Great Britain, I found that my propensities were not to be overcome, without another brush with John Bull; and in 1813, I joined the army as a volunteer, marched into Canada, under General Hampton. I was in a battle, or brush, with the Canadians and Indians, near Chatoque four corners, after which we gloriously, or ingloriously, retreated within the limits of the States. In 1814, thro' the day, I was in the battle at Plattsburg, when the British were driven back to Canada in double quick time. Thinking we had gained glory enough for one day, I took up my line of march for home, at which place I went into winter quarters. Soon peace was proclaimed, and I soon became peaceable myself, and should have remained so, had not war been declared against Mexico, in which I had a notion to participate, but my folks told me I was too old to march or fight, and they (the Mexicans) being poor cowardly dogs, I gave it up.

In 1813, I was elected a Representative to the Legislature, being at that time eighty-eight years of age. Whilst at Concord, on the 17th of June, I went to Boston, to attend the Bunker Hill Monument dedication, and returned on the same day. I thought whilst there, and think yet, that I needed no assistance, yet Gen. Peaslee, our Representative in Congress, kept near me all day, and when we returned to Concord, waited on me to my boarding house. For that gentleman who bestowed on me so much kindness and respect, I shall cherish a most lively regard, whilst I live."

The old veteran, whilst delivering this narrative

asked me "if I was taking notes for a newspaper?" I answered, "I thought I should inform the press that there was yet at least one Bunker Hill hero living." "That," said he "is right; send it to Captain Sleeper, of the Boston Journal, which I read weekly, and in which I lately saw that the only surviving Bunker Hill man had marched to his last quarters. Tell him that old Major Burns is still living, and daily returned fit for duty. That during the winter he has often walked to the village post office a distance of two and one-half miles, over a very hilly road, and back alone and unattended; and that excepting a slight cough, and a little deafness he enjoys a chat with his friends as well as ever. And also say to him, if his health is as good next summer as it is now, he intends in company with that boy, (pointing to his grandson, who is between forty and fifty years of age) to once more visit Boston, when as many as wish may see one of the Bunker Hill boys, standing on "Bunker's awful mount," who over three-fourths of a century since, in that place, passed a day of excruciating hunger and thirst, his bosom bared to the balls of a mercenary soldiery, fighting against tyranny and oppression."

In taking leave of this interesting house, I took a bird's-eye view of its inmates, the venerated centenarian and the wife of his youth, the aged son and wife, and lastly the "boy" and wife surrounded by an interesting family of children.

Lastly, I would say, if Heaven permits the good old man, to make his intended visit, I do hope the good people of Boston, in some way or other, will give him a "Benefit."

Were I in the city at that time, how much sooner would I give my mite to see, amuse and help the man, who had fought through a long and bloody war, to firmly establish this great and mighty republic, than to hear all the Nightingales of Sweden, the Whippoorwills of America, or the music-grinders of France and Italy.

Yours, &c.,

S.

Tamworth, N. H., Feb. 9, 1851.

F. CORWAY, the Indian Chief, in his "Traditional History of the Ojibway Nation," lately published, (and which is said to abound in facts and traditions such as no one but a native of the red race could write, tells the following amusing story of a converted Indian, named Peter Jacobs, an efficient laborer in the cause of religion:

"It was a large meeting, where the 'Good Spirit' prevailed. The pale face and the red man were there. Peter rose and spoke rapidly, eloquently and feelingly on the occasion. He said, 'The Great Spirit has blest Peter the orphan boy. He tell no lies. He says He love me. That good man says, (pointing to the preacher) Jesus Christ died for every one. How happy, happy now. My father and mother gone; they drank fire water; (turning to some of the traders who were at this moment as attentive as the rest) you did not give the Indian Bible; you cheated poor Indian for his furs. You kill my people. What will the Great Spirit say when he come? He will tell you, 'You give poor Indian fire water, you kept the Bible from poor Indian long, long time: 'You big rascal, go to hell!' This is what he will say to you.'"

VALLEY FARMER,

EPHRAIM ABBOTT, Editor,

Editor's Office and Printing Office, 161 Fourth street.

ST. LOUIS, NOVEMBER, 1851.

"CIRCULATE THE DOCUMENTS."

COTE SANS DESSEIN, Mo.

Aug. 17, 1851.

MR. EDITOR:—I have frequently heard of the merits of your agricultural journal, without ever being able to see one. There are many persons here who speak highly of it, whether from a personal knowledge or from information, I am not prepared to say. I have been, and now am, taking several Eastern and Northern journals, devoted exclusively to American husbandry, and am desirous of taking one from the West, and therefore I choose yours. You will therefore, be so kind as to receive me as one of your subscribers, who will comply with your regular terms. Send me a prospectus, with your previous issues, as I shall try to get subscribers for you as I have done for those of the East and North. If I knew your price, I would enclose one year's subscription, therefore I am excusable until I know them, after which I hope to send you more names than my own, as there is a constant enquiry for correct information, relative to farming and domestic animals, which I hope your journal fully describes,

Yours, respectfully,

T. C. PAGE.

NEAR HANNIBAL, Mo.

Sept. 24, 1851.

DEAR SIR:—About one year ago I saw a notice of the *Valley Farmer* in the St. Louis Presbyterian—speaking of it in high terms. I again saw it named in the *Prairie Farmer*, but the place of publication was not stated. I think the Presbyterian said St. Louis, and I shall send this there at a venture. I am a small farmer, and want all the information I can get, I wish you to send me your paper, and on receiving the first number, so I may know how and what, I will send you the money,

Respectfully, yours,

J. M. NELSON.

We have given the above as samples of numerous letters that we have received from various parts of the country, and we almost daily meet with persons who tell us of themselves or others

who would have been glad to have received the *FARMER*, had they known of its existence. Not long since a postmaster whose office is less than forty miles from St. Louis told us that he procured forty subscribers to agricultural periodicals last winter, of whom 39, he felt convinced, would have preferred the *Valley Farmer* had they known that there was such a paper. Now we wish every friend of our work to make known to his neighbors that there is such a paper as the *Valley Farmer*, that it is printed in St. Louis, the central point for all the trade of the Upper Mississippi Valley, and consequently the best place for the publication of such a paper; that it is cheaper than any Eastern publication of a similar character; that it is exclusively devoted to the interests of the *Western Farmer*; and that every number of it, to any man who will read it, is worth the price of a year's subscription. Every person who has received the *Farmers* for the present year, should get at least a club of four to take it next year, and many of them will find it quite easy to make up clubs of seven, fifteen, or even larger numbers.

BUCK'S PATENT COOKING STOVE.—Our "Re-sor" had been badly used, by burning stone coal, so that the front plate of the oven had melted away; and we found the only way to promote harmony in the "kitchen cabinet," was to procure a new cooking stove. We accordingly procured from Messrs. BUCK & WRIGHT, No. 209 Main street, one of "Buck's Improved Patent Cooking Stoves," which was placed in its proper position, and instructions given to give it a fair and impartial trial.

Now, in a poor man's family the purchase of a new cooking stove—particularly such a stove—is a matter of no inconsiderable moment, and when the first report, in the shape of a pan of nicely baked biscuit, made its appearance on the table, there was a very unanimous expression of approbation by the "olive branches," and even the sober "better half," whose willing hands had superintended the baking, admitted that the new stove was "hard to beat." Since then it has been used for all the purposes for which a stove is ever used—baking, boiling, frying, broiling,—and in every thing it is equally valuable. We think that we can safely say that not more than one-third as much wood is required to accomplish a given amount of cooking—particularly baking—as with the old stove, and the saving of labor and time is equally great.

Our good wife is particularly pleased with the

new or upper oven, placed directly back of the fire place. This is a recent improvement, and, besides still further lessening the quantity of fuel used, is an admirable place to cook a pair of chickens or ducks, when the other oven is occupied with larger dishes. And in the morning, a dozen potatoes, a pan of biscuit, or a "corn dodger" placed in here, are cooked in a trice, and almost as soon as "the tea-kettle boils," are ready to be sent, piping hot, to the table.

We cannot dwell upon all the excellencies of this stove. Its praise is in all the families that have used it; and the number of these is neither few nor small. But we feel constrained to add our testimonial to that of numerous others who have spoken so highly of it, and assure our numerous friends and readers throughout the country that in this age of good stoves, in our opinion Buck's stove is superior to any other pattern offered to the public.

GOOD CHEESE.—There is scarcely any in market, and all because the Ohio river is so low that the supplies from the "Buckeye State" are cut off. And is it not a shame that with such an admirable country for the productions of the dairy as surrounds us, we must be dependent upon Ohio for nearly all our cheese and a large portion of our butter? Yet so it is; and so it will be until the farmers of the west wake up to the importance of the subject, and enter upon the business of dairy farming in the right way. When this "good time" comes, "Ohio butter" and "Western Reserve Cheese" will be "no where" hereabouts.

BURLINGTON CONVENTION.

The St. Louis Intelligencer of the 27th inst. contains a detailed account of the proceedings of the above convention. Two hundred and ninety-four delegates from the states of Illinois, Missouri, Iowa, Wisconsin, and the Territory of Minnesota, were present; and the "greatest enthusiasm and unanimity," we are informed, "characterized the Convention." Some of the most talented, intelligent, and energetic men, that can be found in the West, were there; and speeches of no ordinary power and brilliancy, enlivened the proceedings during the whole time of the session.

The improvement in the navigation of the Mississippi, was unanimously viewed as a national object; and one imperatively demanding the early and decided action of Congress. The necessity of the Western men uniting their efforts, and pulling together for the accomplishment of this de-

sirable object, was felt and acknowledged by the whole convention.

The action of the convention resulted in the adoption of four Resolutions, and a Memorial to the Senate and House of Representatives of the United States.

The 1st. resolution declared the Mississippi to be a national highway, and under the jurisdiction of Congress.

The 2d. resolution asserted the necessity of immediate action by Congress, to improve the Des Moines and Rock River rapids.

3d. resolution, (which by the way ought to have been the 2d.,) asserted the practicability of the permanent improvement of the channel of the river at the Des Moines and Rock river Rapids.

And the 4th resolution, requested the Representatives and Senators in Congress, from the several states represented in convention, to use their exertion to promote the object in view.

The memorial embodied the views expressed in the resolutions, and called the attention of Congress, to the obstacle opposed by these rapids, to commerce—the injury to the prosperity and convenience of the people residing in the vicinity of the Upper Mississippi, resulting from the obstruction to navigation on this river—and the enhanced value and speedy settlement of Government lands, above the Rapids, if the improvement in question should be carried into effect.

We trust that this movement will not fail to have a practical result. The well being of many thousands, will be promoted by the removal of the obstructions in the Upper Mississippi; and we cannot help expressing our sincere wishes, that an object so desirable and necessary to the public good, may be fully and speedily accomplished. —[St. Louis Presbyterian.

WHITE LEAD AND OIL MANUFACTORY.

The adaptation of St. Louis for manufacturing is illustrated in the rise and success of the White Lead and Oil Manufactory of Mr. HENRY T. BLOW. No enterprise has ever been more successful, whilst few have encountered more serious obstacles and reverses.

The manufacture of white lead and castor oil was originally commenced by Messrs CHARLES & BLOW, on a small scale, on a small scale, on the corner of Clark Avenue and Tenth street. Upon the dissolution of their partnership, Mr. BLOW took the entire ownership and management of it, and by great industry, energy, and close application to his business, he brought it up to be one of the first establishments of the West, for

the manufacture of white lead, castor and linseed oils, vinegar, &c., &c. It was in the full tide of successful operation—the buildings, machinery and fixtures had cost about \$90,000 and a heavy stock had been laid in for the season, when a fire occurred in the building which entirely destroyed it, with its contents.

The enterprising proprietor met his loss with fortitude, and without dismay. He immediately set himself to work, and from his other property squared himself with the world, and commenced the re-construction of his works. On the ruins rose, in an incredible short time, a building occupying nearly a quarter of a block, of substantial and ornamental architecture, and in it he has put perfect machinery, and all the appliances and fixtures of a modern and improved kind. The present manufactory, we believe, is as complete and extensive as any of the kind in the Union, if it does not excel every other. The building, machinery, &c., &c., has cost about \$150,000. The energy, success, and character of the proprietor, enabled him to overcome all obstacles, and in a short time he was supplying a large portion of the West, and even the East with his manufactured articles. About this time a combination was formed by the manufactures of white lead on the Ohio, to regulate prices, finding that the article could be furnished in this city cheaper than they could afford it. A large amount of the manufactured article was thrown into the St. Louis market, and a tariff of prices fixed. To this arrangement, Mr. B. refused to be a party, and, despite the opposition, forced the combination to withdraw from the field, with a heavy loss, while he received a fair profit at the reduced rates.

Recently, a change has taken place in the proprietorship of the establishment. It has been converted into a stock company, under the law of the State authorising the formation of such companies, for manufacturing purposes. Mr. GEORGE COLLIER, one of the wealthiest of our citizens, has taken a large portion of the stock, Mr. BLOW retaining the controlling interest and management, and thus increased capital has been added to energy and industry, and the future success of the establishment is placed beyond a contingency. We would be glad to see other of our capitalists thus stepping forward in the aid of manufactories. It is out of these establishments that the real wealth of St. Louis is to be created. There is no branch of manufactures which, with prudent management and a fair trial, has not proved successful and profitable, and they may yet extensively increased.

It will be seen by the advertisement in to-day's paper, that the style of the company will hereafter be "THE COLLIER WHITE LEAD AND OIL COMPANY."—*Mo. Republican.*

WOOL TRADE.—At the principal market the demand for this article is quite limited, and the sales are confined to small lots for immediate use.

At Philadelphia the market is dull, and prices generally rule in favor of the buyer. The only important transactions noticed are about 22,000 lbs good 3-4 blood at 44 c. 35,000 lbs in mixed up lots, averaging about 1-2 blood at 40c, and 5,000 lbs low mixed at 33c—all on the usual credit.

The Boston market also rules very quiet for domestic, and the transactions during the week have been confined to small lots at prices ranging from 31 to 45c.

At Cincinnati there is no new feature to notice.

There is but little doing in either fleece or pulled. The quoted rates are from 27 to 41c.

THE FIRST FROST.—We had the first severe frost of the season on Tuesday night, Oct. 14th. Up to that date there had not been sufficient to kill pumpkin vines, and their blossoms were very abundant in the fields. The corn crop is a very large one through the whole Northwest, the latest having got ripe. It is worth making a note of, that the Ohio Dent Corn has ripened this year, as far up as the 45th parallel, but it should be remembered that the longitude is about 92 west from Greenwich.—[*Galena Gaz.*]

From Moore's Rural New Yorker.

MICHIGAN STATE FAIR.

In the expectation of relieving, from an eye witness, an account of the Fair of the Michigan State Agricultural Society,—held at Detroit on the 24th, 25th and 26th ult,—we have deferred preparing a notice from other authority; and now, on the eve of putting our paper to press, we can only give a paragraph or two, founded upon the meagre reports in western exchanges.

As we anticipated, (and we judged from personal knowledge of the enterprise and progressive spirit of many farmers of the Peninsula State, as well as other information,) the exhibition was much larger and more numerously attended than either of its predecessors. The show throughout is spoken of as highly creditable, and as having passed off very pleasantly to all interested.

From the amount received, we conclude

that the display of stock, particularly horned cattle and sheep was not only creditable, but very superior. The show of Devons and Durhams, which was large, embraced many very fine animals. We notice that Mr. F. V. Smith, of Coldwater, a breeder of Devons (and who obtained his stock of Wm. Garbutt, of this county, and Mr. Beck, of Wyoming.) was awarded the first premium under six different heads—for best bulls, bull calves, cows, heifers, &c. This speaks well for Western New York stock, and is creditable to friend Smith as a breeder and manager.

In a brief notice of the Fair, the Michigan Farmer remarks:

"Our State Agricultural Society has reached a point from which there can now be no retrograde, and there are no grounds for fears as to its continued permanent existence. There was not, all things considered, one single untoward occurrence to dampen the spirits of those who had made up their minds to attend, or to repel the out-gushings of the kindest feelings there, and through the whole time all things passed off well. The show of cattle and sheep was splendid—there were some of these animals on the ground which cannot be surpassed in any part of the country. We have no way of determining the number of persons present but every public house in the city was filled to overflowing, and a great many were accommodated in private houses. On the second day of the Fair, from early morn till sundown, the streets from the city to the grounds, and for ten miles out, were crowded with teams and footmen, and all day long the buildings containing the articles on exhibition, were one solid mass of men, women and children."

The annual address was delivered by Gen. Cass. It is spoken of by all parties, as an able and eloquent effort—and the extracts we have read certainly warrant the encomium.

At the close of the Fair, the Hon. Jas. B. Hunt was re-elected President of the Society,—J. C. Holmes, Esq., of Detroit, Secretary, and H. H. Brown, Treasurer. Executive Committee for ensuing year:—Geo. C. Monroe, Janesville; Wm. Spencer, Ypsilanti; W. Wright, Adrian; Ira Philips, Armand; Jeremiah Brown, Battle Creek; A. Y. Moore, Kalamazoo; W. H. Mont-

gomery, Monroe; M. Shoemaker, Jackson; Titus Dort, Dearborn, and A. H. Hart, La-peer.

From Moore's Rural New Yorker.

THE OHIO STATE FAIR.

The Second Annual Fair of the O. State Agricultural Society was held as announced at Columbus in three days of the last week in September. All accounts represent the exhibition as very creditable to the State, though from the lack of traveling and transportation facilities it was not as large as it otherwise would have been. The show grounds were beautiful and well adapted to the purpose—the only complaint arose from the inexperience of the officers and clerks &c., which could not well be prevented.

In the stock department, that appropriated to Durham cattle was well filled, the Scotia valley sending representatives from fine herds of this variety. There were a few good Devons, and many excellent grade cattle. The show of sheep was extensive, embracing choice specimens both native and imported. The swine made a fair though not large show. Of horses there was a grand display. The celebrated Morgan had numerous representatives, and of blood stock there were many fine specimens. The poultry was an attractive feature.

Mechanic's Hall was very creditably filled, though much intended for exhibition failed to appear from lack of means of transportation. Various mechanical inventions were displayed in full operation, hailing from other States as well as Ohio. This city was well represented. A new reaping machine (Cook's Self-raker) was exhibited which cuts a 7 foot swath and does its own raking,—and a multitude of farm implements gave evidence of the progress of Agricultural improvement.

There was not a large display of Domestic manufactures, but what was shown, was very honorable to the skill and enterprise of the exhibitors. Owing to the general failure of the fruit crop of Ohio, and the severe drought, Floral Hall was not as well filled as it otherwise could have been. The best fruits shown there, were from this city, and attracted much attention. The editor of the Ohio Cultivator had a large variety of specimens of wheat, barley, oats, and grass, selected by him in Europe, upon

which experiments will be made in the country.

A severe storm of wind and rain demolished the speaker's tent and detracted much from the interest of the addresses. The receipts of the fair are stated as about \$1,000 higher than last year. The next fair will be held at Cleveland.

From Moore's Rural New Yorker.

WISCONSIN STATE FAIR

The initial Cattle Show of the Wisconsin State Agricultural Society—held at Janesville, yesterday and the day previous—is numbered among the things that were, but its influence for good must be lasting. The apprehensions of many of the officers and members that the fair might be a failure, are entirely dissipated by the result. On the contrary, the show has been most creditable and satisfactory to all participants—fully demonstrating that the people of Wisconsin possess skill and enterprise of the right stamp, and that they are awake on the subject of "progress and improvement" in the art which feeds and clothes all mankind.

The show grounds, embracing some 25 or 30 acres, were well arranged, and very creditably filled or covered. In the centre was a capacious tent, for the exhibition of fruits, flowers, fancy articles, &c. Near this was a large building for the display of agricultural and mechanical products. Upon two sides of the enclosure were stalls and pens, filled with cattle, sheep and swine. The remainder of the open area was appropriated to the show trial of horses, agricultural implements and machinery, &c.

The central tent was the great point of attraction, especially for the ladies. The display of fruits and flowers was very fine: considering the season, and reflected much credit upon its contributors. Of apples, pears, plums, grapes and quinces there was a liberal and good display—mostly from Rock and Milwaukee counties, though other sections were well represented. The tent also embraced a large and rich show of jewelry, daguerreotypes, and various small articles of manufacture, combining the useful and ornamental.

There was a very large display of agricultural implements and machinery—from reaping and threshing machines down to

pitchforks and pruning knives. This department of the exhibition received, as it eminently deserved, marked attention from the thousands in attendance. Wisconsin is doing considerable in the way of manufacturing implements, and I noticed the principal establishments in Milwaukee, Beloit, Janesville, Watertown, and other places were well represented. If we keep on, our people will soon have no occasion to pay tribute to the east for implements of any kind.

Of the stock I cannot speak so advisably, having less time to see than I wished or expected. But I saw more and better animals than I anticipated, and confess that no part of the exhibition caused me a more agreeable surprise. There was a large show of horses, eliciting much attention and commendation.

The show of cattle considering the circumstances, (recollect Wisconsin is young, and our society in its first year,) was remarkable in numbers, quality and variety. Of Short-horns and Devons, particularly, there was a good representation—embracing superior animals in each class—while the natives and crosses also gave evidence of care and attention on the part of owners and breeders.

The sheep pens were well filled. There were many excellent animals, especially among the Saxons and Merinos. The "old clo' man" may come this way, for our people have the stuff for new rigs throughout—and when the new flax cotton manufacture gets along, I reckon that we shall be still more independent.

The swine I did not observe particularly, but believe there was a fair show. I had almost forgotten to mention that there was a fine display of butter and cheese; but as this is written in haste, I cannot particularize in any department, and must omit notice of some altogether.

In conclusion, let me say that Wisconsin has made a highly creditable exhibition—showing the enterprise, skill and products of her rural population. The attendance has been unexpectedly large, while every thing has passed off satisfactorily. To the farmers of Michigan, Ohio, and even you of the Empire State, we send this greeting.—Wisconsin is no longer coming, but HAS ARRIVED.

THE FAMILY CIRCLE.

This department will be conducted by
Mrs. MARY ABBOTT,

BUTTER.

We have said some little about good bread, and we now would turn our attention to good butter. How important is it that when we have good bread we should have good butter to put on it! How necessary to health is good butter, and how injurious is the rancid trash that is sold in our market for butter, and that at unreasonable and extravagant prices! Now we believe that if farmers would pay more attention to this important part of their dairies, they might make it profitable to themselves, and confer a real blessing upon our cities, as the diet of a large portion of the inhabitants of cities is necessarily composed of bread and butter. Young children and invalids are very injuriously affected by bad butter. When children ask for food, bread and butter is given them, because it is more handy and convenient, and we believe it the most proper, if the bread and the butter are good—but they seldom get that. Heavy, doughy, or tasteless baker's bread with rancid butter, constitutes a great part of the diet of the children of our cities, and what can be more pernicious to health? No wonder at the great mortality of children in cities. For invalids, good bread, carefully toasted, with pure, sweet butter, makes a light and nutritious diet, without destroying the appetite, like many of the tasteless compounds prepared for the sick. We speak from experience.

Now we believe that this can be remedied, if farmers would awake and consider the profits that can be made from butter, even at a shilling a pound, without any of the risk that there is on almost any thing else that a farmer has for sale. Cannot large dairies be kept as well as large crops of wheat or corn raised? Grains suddenly rise in market; and as suddenly fall, while butter and cheese are always in demand at high and steady prices. Crops are affected by the heat and the cold, the wet and the dry, not so the dairy. We cannot judge as to the amount of labor required for either, but should suppose it would not require more labor for a large dairy, than for large crops. We believe that butter can be made much better, with more profit to the farmer, and can be afforded cheaper in the market, so that the poor as well as the rich, might enjoy the luxury of good butter, if farmers in general would exercise more energy, and pay more attention to this important subject. We would re-

commend that farmers put down their own butter and not sell it to butter gatherers, to be carried about the country, and then brought to market. They can put it down in summer, and send it to market themselves in the fall, when it brings high prices.

Butter should be made good at first, churned in a cool, dry place, with the butter milk well worked out. Then if properly put down it will keep from spring to fall without tasting any the worse for keeping. We will here give a recipe for keeping butter good the year round:

After the butter has been properly salted with pure clean salt, and ready to be packed in the cask, put in the bottom of the tub, cask or crock a layer of butter, say three inches thick, pressing it in tight and making it smooth on the top, then sprinkle a small quantity of salt petre and double refined loaf sugar, pulverised and mixed together, over the layer, and then add another layer of butter, which sprinkle in the same way, and soon till the vessel is full, when it should be covered with fine clean salt, closed up air tight, and put away in a dark, dry and cool place.

We are aware that some excellent butter makers dispense with the use of salt petre and sugar but we know from experience that these articles are of great service in preserving the butter. We hope our readers will give more attention to this subject, and that those who have had experience in it will instruct the inexperienced through the pages of our journal. Any one can make butter, but few, very few, can or do, make good butter.

WORTH KNOWING.—A young lady in this city while in the country some years ago, stepped on a nail which ran through her shoe into her foot. The inflammation and pain were very great, and lock jaw was apprehended. A friend of the family, however, recommended the application of a beet taken fresh from the garden, and pounded fine, to the wound. It was done and the effect was very beneficial. Soon the inflammation began to subside, and by keeping on the crushed beet, changing it for a fresh one as its virtue seemed to become impaired, a speedy cure was effected. Simple but effectual remedies like this should be known by everybody.—[Philadelphia Saturday Post.

A few months ago, we visited a family consisting of father, mother and thirteen children, and the mother informed us with her own lips, that there was not a fool or a lazy one among them.

There were five daughters unmarried, each o

who n we noticed was clad in a beautiful thick and warm frock, of her own manufacture! The father of that family had money to loan.—*Galena Gazette.*

WILLY AND THE BIRDS.

A TRUE STORY.

A little black-eyed boy of five,

Thus spake to his mamma,

"Do look at all the pretty birds;

How beautiful they are!

How smooth and glossy are their wings—

How beautiful their hue;

Besides, mamma, I really think

That they are pious too!"

"Why so, my dear!" the mother said,

And scarce suppressed a smile—

The answer showed a thoughtful head,

A heart quite free from guile.

"Because, when each one bows his head,

His tiny bill to wet,

To lift a thankful glance above,

He never does forget;

And so, mamma, it seems to me,

That very pious they must be."

Dear child, I would a lesson learn

From this sweet thought of thine,

And heavenward, with a glad heart, turn

These earth-bound eyes of mine;

Perfected praise, indeed is given

By babes below, to God in Heaven.

TO COOK COLD MEATS.—Chop the meats fine add salt, pepper, a little onion, or else tomatoe/sup, fill a tin bread pan one-third full, cover it over with boiled potatoes salted and mashed with cream or milk, lay bits of butter on the top and set it into a Dutch, or stove oven, for fifteen or twenty minutes.

TO PREPARE COLD BEEF-STEAKS.—Put a fine minced onion into a stew-pan, and add half a dozen cloves and as many pepper corns, pour on a coffee-cup of boiling water, and add three large spoonfuls of butter, or some gravy. Let it simmer ten minutes. Then cut up the beef in mouthfuls and pour into this gravy to simmer four or five minutes, till heated through, but do not let it cook any more, as it is not healthful.

Three large tomatoes stewed with an onion improves this.

TO COOK COLD BOILED HAM.—Make quite a thin batter of flour, water, and eggs, with a little salt. Pour the batter over the bottom of a Dutch oven, or frying pan, which has a very little hot, butter or lard in it; say three great spoonfuls. Let the batter be no thicker on the bottom than a straw; let it fry a couple of minutes and then cover the batter with thin slices of ham, and pour a thin cover of batter over them. Let it fry till the bottom looks a yellowish brown (have a hot

fire,) then cut it into squares, or into triangular quarters, or eights and turn it with a knife, and let it fry till the other side is browned.

PLAIN CALF'S HEAD SOUP.—Boil the head the and feet in just water enough to cover them; when tender take out the bones, cut into small pieces, and season with majoram, thyme, cloves, salt and pepper.

AN EXCELLENT SIMPLE MUTTON SOUP.—Put a piece of the fore quarters of mutton into salted water, enough to more than cover it, and simmer it slowly two hours. Then peel a dozen turnips and six tomatoes, and quarter them, and boil them with the mutton till just tender enough to eat. Thicken the soup with pearl barley. Some add sliced tomatoes, or the juice and rind of a lemon. Use half a tea-cup of rice if you have no pearl barley.

CORN GRIDDLE CAKES WITH EGGS.—Turn one quart of boiling milk, or water, on to a pint of Indian meal. When lukewarm add three table-spoonfuls of flour, three eggs well beaten, and a easpoonful of salt. Bake on a griddle.

A writer in the Boston Journal relates the following curious anecdote:

We have a fine dog of the mastiff breed, who takes great interest in all home affairs, and he seems to think that the poultry (of which we keep a great many) are under his especial protection,—and woe to the unlucky rat, weasel, cat or skunk, who dares venture within the precincts of the yard. One morning this summer I was in my room, and hearing a commotion in the yard, I looked out, and observed a fine speckled hen of the Dominique breed in great distress running from a deep earthen water jar to the dog, (who was asleep about a rod from the jar,) and back again. This she repeated two or three times. I saw that one of her chicks, (a few days old,) had fallen into the jar, and was about going to its relief, when the dog sprang up and ran to the jar; he seemed to deliberate for a moment, then put his nose deep into the jar, and not succeeding in taking the chicken out, placed his paw upon the edge of the jar and upset it, when the chicken ran off and joined the brood, much to the relief of the old hen. The dog, after deliberately lapping his paws, quietly returned to his nap; and I, thinking that such "instinct" was worth recording, wrote it down at the time in my diary,—and you may, if you please, give it to your readers.

SLEEPING FLOWERS.

Almost all flowers sleep during the night. The marigold goes to bed with the sun, and with him rises weeping. Many plants are so sensitive that their leaves close during the passage of a cloud. The dandelion opens at five or six in the morning, and shuts at nine in the evening. The "goat's beard" wakes at three in the morning and shuts at five or six in the afternoon. The common daisy shuts up its blossom in the evening and opens its "day's eye" to meet the early beams of the morning sun. The crocus, tulip, and many others close their blossoms at different hours towards evening. The ivy-leaved lettuce opens at eight in the morning, and closes forever at four in the afternoon. The night flowering cereus turns night into day: It begins to expand its magnificent sweet scented blossoms in the twilight, it is full blown at midnight, and closes never to open again with the dawn of the day. In a clover field not a leaf opens till after sunrise! So says a celebrated English author, who has devoted much time to the study of plants, and often watched them during their quiet slumbers. Those plants, which seem to be awake all night, he styles "the bats and owls of the vegetable kingdom."

ILL-BRED TALKERS.

There is no better evidence of ill-breeding than the practice of interrupting another in conversation while speaking, or commencing a remark before another has fairly closed. No well-bred person ever does it, nor continues conversation long with a person who does do it. The latter often finds an interesting conversation abruptly waived, closed, or declined by the former, without even suspecting the cause. A well-bred person will not even interrupt one who is in all respects greatly his inferior. If you wish to judge the good breeding of a person with whom you are but little acquainted, observe him, or her, strictly in this respect, and you will not be deceived. However, intelligent, fluent, or easy one may appear, this practice proves the absence of true politeness. It is amusing to see persons, priding themselves on the gentility of their manners, and putting forth all their efforts to appear to advantage in many other respects, so readily be-

tray all in this particular.—[Harper's Magazine.]

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KEEP MOVING.—Miserable is the man who slumbers on in idleness! Miserable the workman who sleeps before the hour of his rest or who sits down in the shadow, while his brethren work in the sun. There is no rest from labor on earth. There are always duties to perform and functions to exercise—functions which are ever enlarging and extending in proportion to the growth of our moral and mental station. Man is born to work, and he must work while it is day. "Have I not," said a great worker, "all eternity to rest in?"

GOOD SPELLING.

I have just been reading the report of the Institute of Instruction at Keene, N. H. I am much pleased with the remarks of Messrs. Hagar and Leonard, but have only time to say that my experience confirms the opinion there expressed, that the great deficiency in our common school teachers is want of experience, and the great want of the children is proper discipline and notions of order. In education, also, the first and most needed requisite is the ability to spell correctly. I am satisfied that no bad or blundering speller ever became a good reader, and, in my opinion, no blundering reader can make that proficiency in his studies he otherwise would. Therefore let it be impressed on the mind of every person who undertakes the arduous yet pleasing task of teaching, that spelling right is the foundation of his own success and of his pupil's progress.—[Moore's Rural New Yorker.]

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GRANT THORBURN.—I sailed from Leith, Scotland, 13th of April, 1794, in the good ship Providence, a name propitious, bound for New York. Among the passengers was a lady having with her in charge four or five young children. The father had gone before to prepare them a habitation, no small undertaking when three months was a tolerable passage. Among the children was a boy, seemingly of four year's growth. He was lively and playful, always on deck. His mother was in constant fear on his account. I told her, as I had nothing to do, I would take care of the boy. This to her was a great relief,—so comparative-

ly speaking, I carried the boy in my arms over the waves of the Atlantic.

Now this boy is collector of the port of New York. In the arrangements of Providence he is the man and I am the child,—he in turn carries me in his arms. Or, in plain Scotch, he gives me an office in the department, whereby I can earn enough to keep soul and body together. The sovereign people need not infer from this that I spend Uncle Sam's money for naught,—the office must be filled by some one, and, though seventy-nine I can perform the duties of my department as well as in my twenty-ninth year. I never ate the bread of idleness nor will I, while I can grasp a hammer or blow the bellows.

I have made these remarks without the knowledge of any of the parties referred to. It is to cancel a gift of gratitude due the Giver of all Good, and to men, his instruments,—and to remind my neighbors that a deed done with a good intent seldom goes unrewarded, even in this life. "Cast thy bread upon the waters, thou shalt find it after many days." In my case the promise is fulfilled to the letter. In 1794 I cast my my bread on the waters on the Atlantic ocean: in 1841 I found it floating on the shores of the Hudson river.

"COME THIS WAY, FATHER."

During a short visit to the sea shore of our State, some two years since, with a party of friends, it was proposed one bright afternoon that we should make up a party and go down the harbor on a fishing excursion. We accordingly started, and after sailing about three miles, a young lady of the company declined going farther, and requested us to land her on one of the small islands in the harbor, where she proposed to stay until our return. My little boy, then about four years old, preferred remaining with her.

Accordingly we left them, proceeded about six miles farther. We remained out much longer than we intended, and as night approached, a thick fog set in from the sea, entirely surrounding us. Without compass, and not knowing the right direction to steer, we groped our way along for some hours, until finally we distinguished the breaking of the surf on the rocks of one of the islands, but were at a loss to know

which one of them. I stood up in the stern of the boat, where I had been steering, and shouted with all my strength. I listened a moment, and heard through the thick fog and above the breaking of the surf, the sweet voice of my boy calling. "Come this way, father!—steer straight for me—I'm here waiting for you!" We steered by that sound and soon my little boy leaped into my arms with joy, saying, "I knew you would hear me, father," and nestled to sleep on my bosom.

The child and the maiden are both sleeping now. They died in two short weeks after the period I refer to, with hardly an interval of time between their deaths. Now tossed on the rough sea of life, without compass or guide, enveloped in the fog, and surrounded by rocks, I seem to hear the sound of that cherub voice calling from the bright shore, "Come this way father!—steer straight for me!" When oppressed with sadness, I take my way to our quiet cemetery; still, as I stand by one little mound, the same musical voice echoes from thence—"Come this way, father!—I am waiting for thee!"

I remember a voice which once guided my way
When, lost on the sea, fog-enshrouded I lay;
'Twas the voice of a child, as he stood on the shore
It sounded out clear o'er the dark billows' roar—
"Come this way, my father! steer straight for me;
Here safe on the shore I am waiting for thee!"

I remember that voice which once guided my way,
Midst rocks and through breakers and high dashing
spray;
How sweet to my heart did it sound from the shore,
As it echoed out clear o'er the dark billows' roar—
"Come this way, my father! steer straight for me;
Here safe on the shore I am waiting for thee!"

I remember my joy when I held to my breast
The form of that dear one and soothed it to rest;
For the tones of my child as they echoed out clear,
"I called you, dear father! and knew you would hear
The voice of your darling far o'er the dark sea,
While safe on the shore I was waiting for thee!"

That voice is now hushed which then guided my way;
The form I then pressed is now mingling with clay;
But the tones of my child still sound in my ear—
"I am calling you, father!—O can you not hear
The voice of your darling as you toss on life's sea?
For on a bright shore I am waiting for thee!"

I remember that voice: in many a lone hour
It speaks to my heart with fresh beauty and power,
And still echoes far out over life's troubled wave,
And sounds from loved lips that lie in the grave—
"Come this way, my father, O, steer straight for me!
Here safely in Heaven I am waiting for thee."

GRAIN MILLS.—We invite attention to the advertisement of G. & C. TODD. Those of our readers who have purchased Wheeler's Horse Power, or a similar motive machine, will find at the establishment of these gentlemen a most excellent Grain Mill, which is capable of being driven by this power. Some of our customers have the mill in use, and we have their assurance that they do admirably. The mills are of various sizes from stones fifteen inches in diameter to five feet, but the one which has been run with Wheeler's Two Horse Power is a 24 inch burr, and its cost all complete for use with everything appertaining to the mill is \$125. Almost any farmer and especially one residing any distance from mills would find one of these mills just for his own use an economical article. They occupy but little space, and can easily be removed from one place to another. Todd's mill, machinery, belting, bolting cloths &c., are too well known all over the West to need any praise from us.

The Address of his Honor, the Mayor of St. Louis, Luther M. Kennet, Esq., appeared in the Republic on the 14th ult. In opening he says, that notwithstanding the three previous years have been marked as particularly disastrous, having been visited by fire in '49—fated epidemic in '49, '50 and '51, and flood in 1851, the growth of the city has been more rapid than ever.

The credit of the city is in the most favorable condition—the price of its securities have gradually risen since last spring, and the bonds are now held at ninety-five cents, with a prospect of their soon reaching par. The present revenue is put down at \$600,000, and will, it is estimated, increase about ten per cent a year. The system of sewerage adopted, has been extended, and will, in a few years embrace the whole city.

HOGS AND CATTLE.—We are advised of no contracts of moment for some days. Increased arrivals of Cattle have caused the prices to give way, and good are now offered at \$3 50a\$3 75, and choice stock at \$4. Hogs remain firm; the whole number slaughtered in this city to-day do not exceed 2,500 head, every one of which were cut for baconing; about 400 were slaughtered yesterday, and will be cut to-day which effectually cleans out the pens. There was not a single lot of hogs on the market yesterday. Less barrelled meat, even in proportion to the number of hogs killed, will be put up by our Packers this season than last. The Pacific Railroad and other public improvements it is thought will cause

a great demand for bacon; and many packers will turn their attention exclusively to this branch of the trade. Buyers are yet offering \$4 30a\$4 50 for light hogs, and those of good weight, whilst holders contend for \$4 62 1-2a\$4 75, and as high as \$5 is talked of for early delivery. \$4 50 or thereabouts will be the ruling price when the season fairly opens. If the present cool weather continues, it is thought by the last of the week hogs will begin to arrive in suitable numbers for our packers to begin work. A gentleman conversant with the business, is of the opinion that less than 10,000 head have as yet been contracted for.—*St. Louis Intelligencer, Nov. 4.*

HOGS.—We are informed that a Mr. Hayes, of Dewitt county has 2,800 hogs—1800 of which will average 300 lbs. Mr. H. holds them at \$4 50 delivered at Peoria. Finding no bidders at that price here, he left for St. Louis, where he agrees to deliver them at \$5 00. If he cannot dispose of them at that price, his intention is to return to this city and slaughter them himself. From our latest accounts from St. Louis, it appears that the hog excitement is not so great, and contracts are now made at prices below \$5. We may expect, then, that Mr. Hayes will pack his 2800 hogs in Peoria.

From the best information we can gather, we are led to believe that the number of hogs in this county and the counties immediately surrounding Peoria, is as great as last year if not greater, and in quality are much superior. We have heard of but few contracts. A few lots of from 200 to 500 have been bargained for at \$4. Our pork dealers feel disposed to hang back—and those who have come here with a view of packing, have not yet entered the market very vigorously.—*Peoria Press.*

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